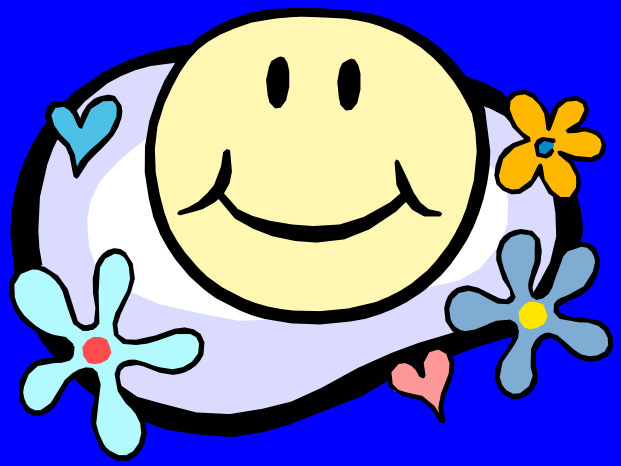
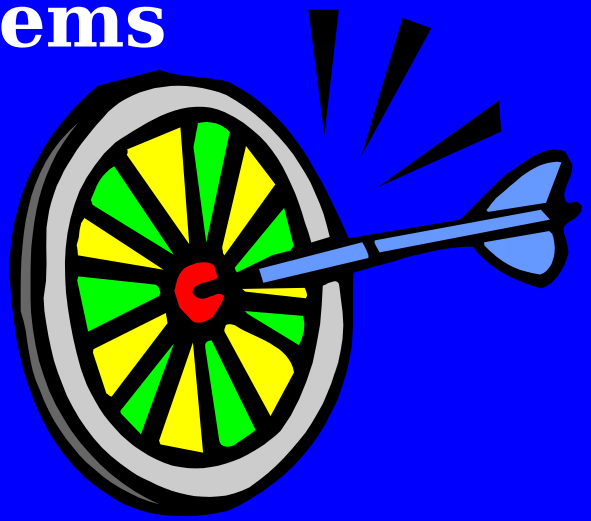
Data Quality
Tips, Tricks and Techniques



Wendy L Funk
Kennell and Associates

Data Quality and the MHS

- **Major MHS initiatives and data**
- **MTF systems and data flows**
- **Common data quality problems**
  - **How to find them**
  - **How to fix them**
  - **How to work around them**
- **Accessing the M2**

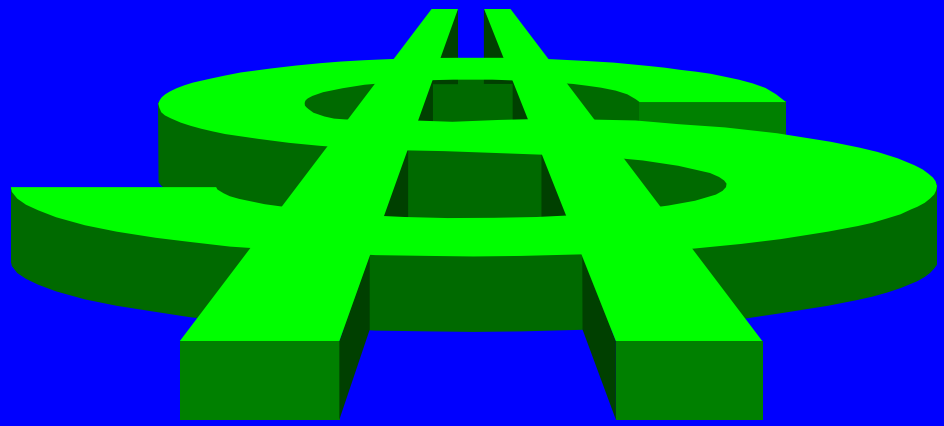


Data Quality and the MHS

- The MHS is a business!
- Old days, “self-contained” organization
- Today, we do *major business* with:
  - Private health care industry
  - Medicare
  - **Veteran’s Administration**

Data Quality and the MHS

- **<u>Some key initiatives that use data</u>**
  - MHS Prospective Payment System (PPS)
  - Managed Care Support Contracts
  - Itemized Billing
  - TRICARE for Life



MHS Prospective Payment System

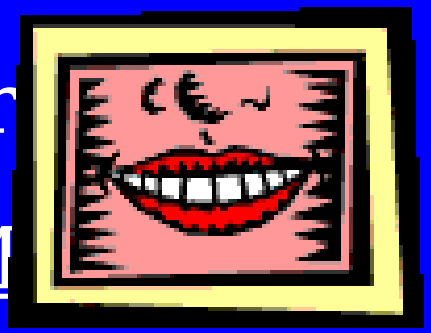
- Service-level funding based on PPS
- Phased in approach
- Funding is earned based on coded workload
- Clinical coding extremely important
- Inpatient and Ambulatory, for now
- More to come

MHS PPS

- Weighted workload derived from MTF records
  - Relative Value Units -- Ambulatory
  - Relative Weighted Products (RWP) -- Inpatient
- Local civilian average costs applied to MTF RVUs and RWPs
- Provider Specialty coding is also important for RVU earnings, beginning in FY06.

Managed Care Support Contracts

- Transition to new contracts
- MTF “count” workload not part of contract this time!
- Contracts renegotiated each year



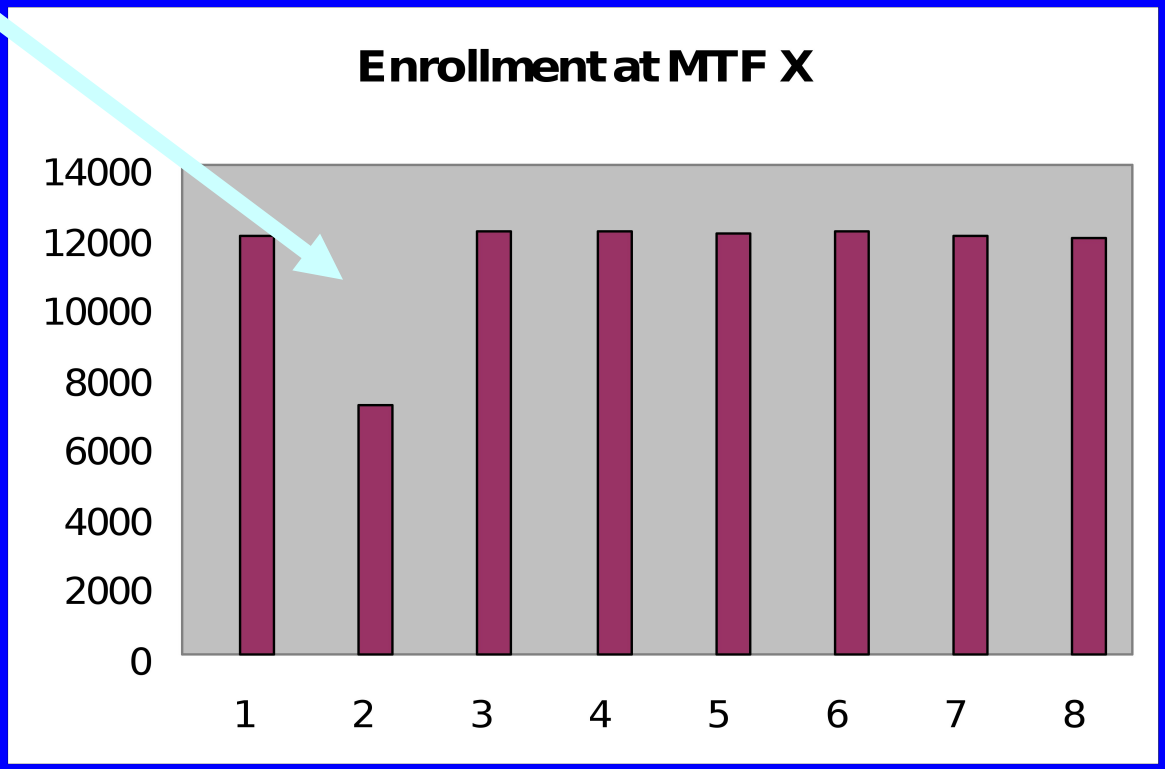
  - Data are used in negotiations (M too!)
  - But for new contracts, no longer directly affects payments

Managed Care Support Contracts

- PCM Assignment (even direct care) is now done by Tnex contractors (stateside)
- MTFs are responsible for maintaining currency of PCM data for this process
- ***POTENTIAL HOT ISSUE!***
  - *Lost enrollments?*
  - *Re-work for Tnex contractor?*

Managed Care Support Contracts

- **Several panels of enrollees lost at start of Tnex**
- **Enrollment reinstated retrospectively**



Itemized Billing

- Third Party Collections Program
  - Billing other payors for care provided in MTFs
- Recent transition to CPT based billing for outpatient
  - **Requires clean coding on SADR.**
- Industry Based Workload Alignment (IBWA)
  - Inpatient Professional Services

TRICARE for Life

- Expansion of coverage for seniors
  - –Includes “purchased care”
  - –Pharmacy benefit began in mid-2001, medical care in 2002
- Accrual fund established to pay for new benefits and old benefits (direct care @ MTFs)
- DHP earns money from accrual fund

TRICARE for Life

- Purchased Care:

  –Money earned when we pay a claim for a TFL'er

  –TRICARE is usually 2nd payor to Medicare

  –Almost immediate reimbursement from accrual fund

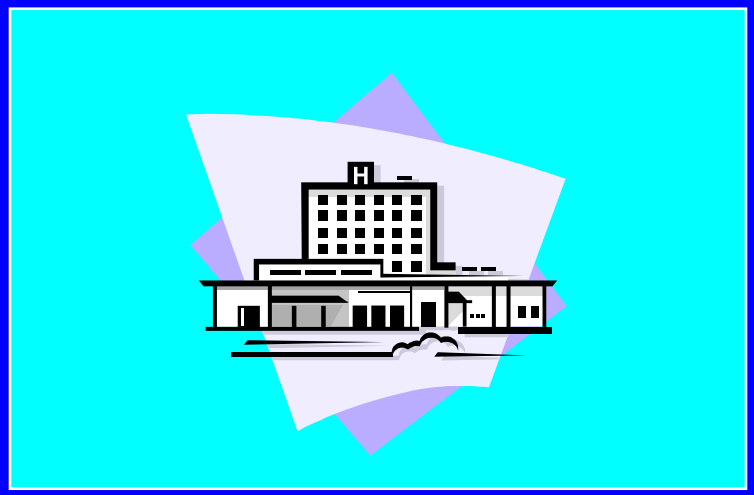
- Direct Care:

  –DHP earns money based on recorded SIDR and SADR

TRICARE for Life

- MTF earnings based on TFL “Prices”
  - –Applied to MTF data records
- TFL Prices calculated from prior year’s data:
  - Inpatient and Ambulatory Coded Records
  - MEPRS Data
  - **Combination** results in “TFL Prices”
  - Requires consistency in coding!

The MTF Data Environment



MTF Data World!

- **Composite Health Care System (CHCS)**
  - Primary operational system supporting MTFs
  - Hospital Management / Administration
  - Communicates with DEERS, other MTF-level systems

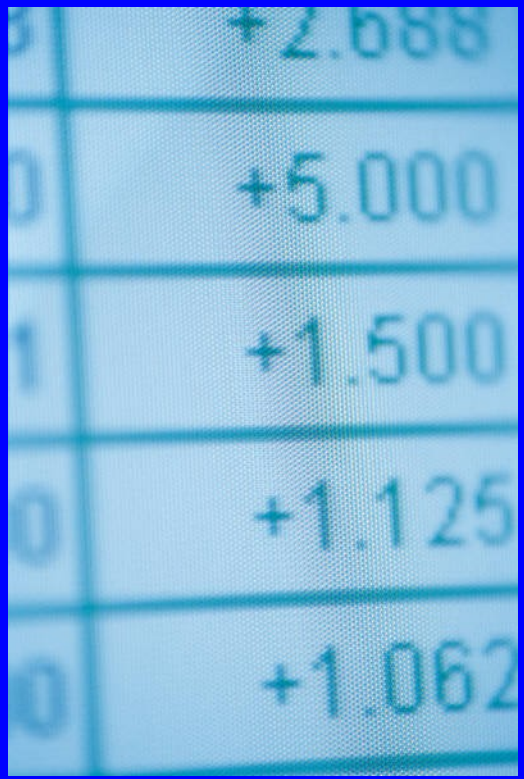
MTF Data World

- Some CHCS Functionality
  - → Patient Registry
  - → Appointing
  - → PCM Assignment
  - → Order Entry
  - → Eligibility Checking
  - → Much more

CHCS captures data while it provides operational support to the MTF.

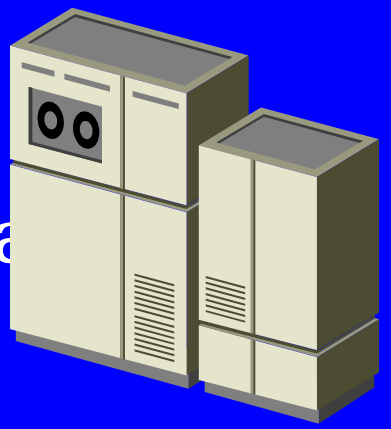
CHCS Files and Tables

- **CHCS contains many files and tables**
  - → Patient File
  - → NED File
  - → Appointment File
  - → etc…
- Users can query CHCS!

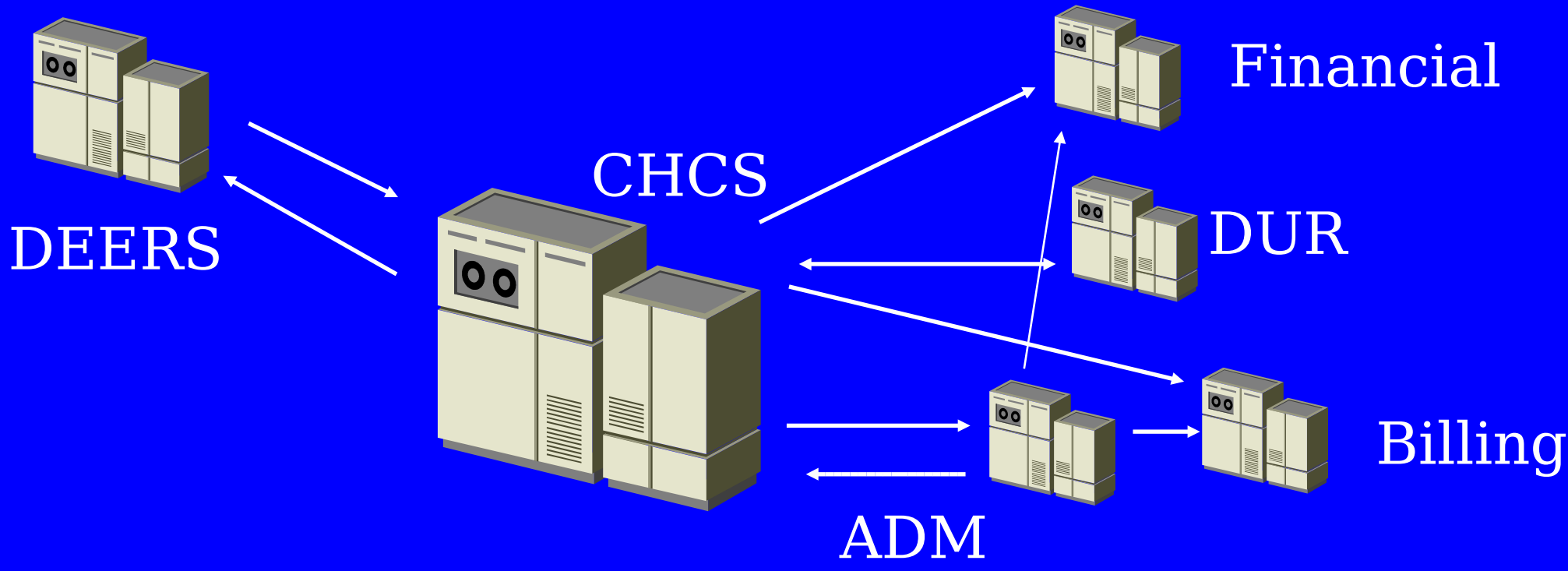


MTF Data World

- CHCS Hosts serve a local area, often more than one MTF
  - → CHCS Hosts not connected
- CHCS in legacy status, being repla
  - → CHCS programmed in MUMPS
  - → Series of files and tables
- CHCS communicates with many other systems.



CHCS is the local “Hub”

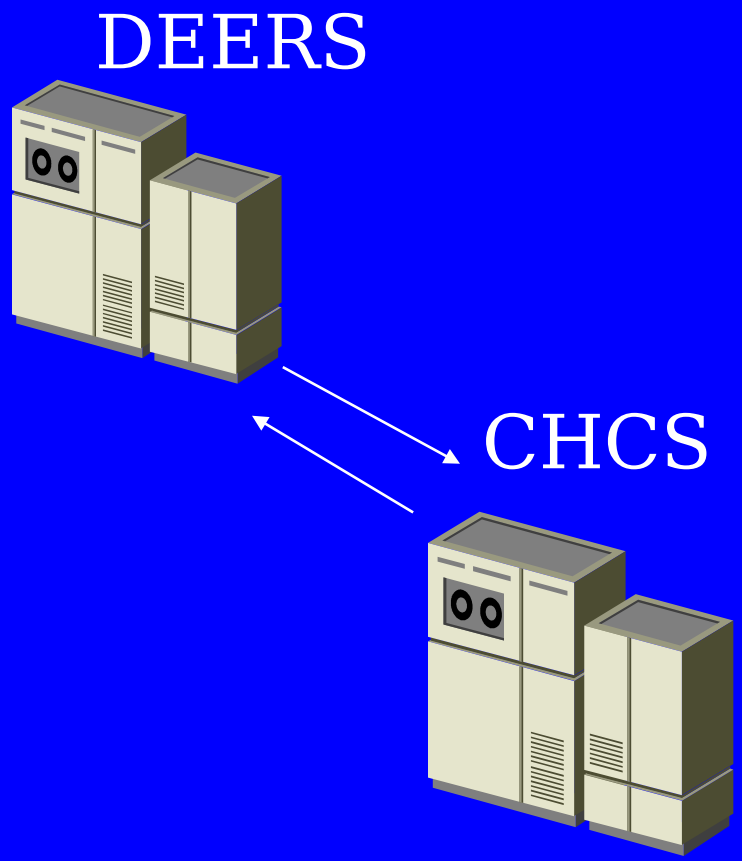


MTF Data World

Data Flows into the MTF

- CHCS updated by local staff at MTFs in the course of doing business… but

- Some data elements in CHCS can only be



MTF Data World

DEERS updates CHCS when:

- An eligibility inquiry is made by an MTF
- When DEERS receives an enrollment transaction that affects the MTF

→ ***Some changes in status occur w/o CHCS being updated!***

MTF Data World

Example:

- Jane Doe, wife of Sgt. Doe
- Enrolled in Prime at Ft Hood
- PCS to Tripler, where Jane enrolls in Prime

- Upon change in enrollment, BOTH Tripler and Hood CHCS Hosts are updated.

MTF Data World

Example:

- Jane Doe, wife of Sgt. Doe
- Space A patient, makes an appointment in June, for Aug

- CHCS is updated by DEERS when the appointment is made.
- DEERS check (and update to CHCS) again at time of appointment, if info staler than 5 days

MTF Data World

Example:

- Jane Doe, wife of Sgt. Doe
- Has private insurance, goes to MTF sometimes
- Registered in CHCS as “dependent of AD”

- Spouse retires
- Service tells DEERS
- Who tells CHCS? → ***NO ONE! (until next MTF Interaction)***

MTF Data World

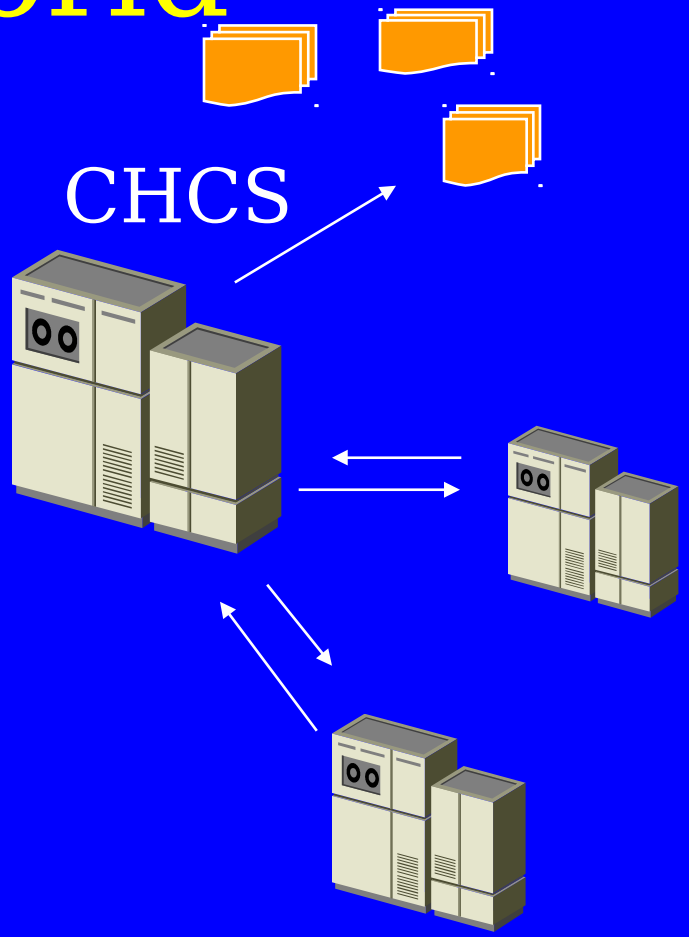
CHCS Data from DEERS

- Patient ID, Sponsor Social
- Status
- Health Care Eligibility (TRICARE, Medicare)
- Demographics (gender, marital status, etc)
- Others

MTF Data World

Data Flows out of CHCS

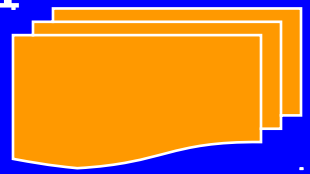
- Ongoing provision of data extracts
- Data feeds to other MTF systems
- Drug Utilization Review System Interface



Local Data Systems

Major data extracts from CHCS (more later)

- Inpatient Data Records (one per disposition)
- Ambulatory Data Records (one per encounter/tcon or rounds visit)



- Tabulated workload data
- Laboratory and Radiology Records (one per procedure) -- NEW

Local Data Systems

CHCS provides data to other MTF systems

- "Interfaces" – complex rules define the data flows
- In some cases, data altere interface, on purpose

Other local data systems and interfaces

Local Data Systems

- **EAS: Tri-Service Financial Data**

  →Service obligation and staffing data

  →Locally captured expense data, available FTE data

  → ***Workload data from CHCS (WAM)***

  → Work-center level unit costing, FTE and workload reporting

Local Data Systems

- **<u>TPOCS - Outpatient Collection System</u>**

  → Used for billing third party insurers, others for care provided in MTFs

  → ***Receives patient insurance and coded encounter data from CHCS***

  → Change in MHS Billing Policy; FY03

  → From global work-center based billing to <u>CPT level</u> billing

Drug Utilization Review

- CHCS also sends real time queries to the Pharmacy Data Transaction Service (PDT

  - →Drug Utilization Review
  - →PDTS provides data files based on CHCS DUR queries
  - →Records about prescriptions provided at MTFs
  - → Includes information about drug, patient and provider

Some Important Corporate Information Systems

Corporate Data Systems

- Both local and “corporate” systems are available for analysis of MTF data, ……

→Local systems limited to local view

→Usually only accessible locally

→**Corporate Data Systems are generally used for major initiatives within the MHS**

→**Data quality in corporate systems is very important!**

Corporate Data Systems

- EAS IV Repository
  - → Contains worldwide MEPRS data
  - → Business Objects based
- Pharmacy Data Transaction Service (PDTS)
  - → Drug Utilization Review
  - → Communicates with CHCS, TRICARE Providers, TMOP

Corporate Data Systems

- **TMA-Aurora**

  → Purchased Care Claims “Acceptance” System

  → Receives and edits checks TRICARE Claims

  → After claim is processed and paid by MCS Contractor Fiscal Intermediary (FI)

  → FI communicates with DEERS; provides claim data to TMA-Aurora

The MDR and M2!

Corporate Data Systems

- **MHS Data Repository (MDR) and M2**

  → MDR receives data from CHCS, ADS, PDTS, TMA-Aurora, DEERS, Others

  → Corporate Data Warehouse!

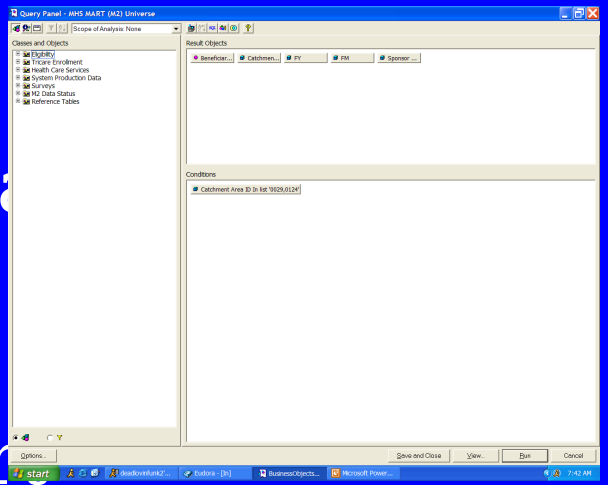
  → Used for most major corporate initiatives

  → "Processes data" (does not edit)

  → Prepares files for M2, PHOTO and MCFAS

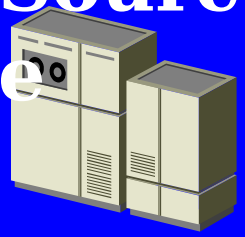
Corporate Data Systems

- **M2**
  - → Contains subset of MDR data
  - → Numerous MTF data files
    - →Worldwide Workload Reports
    - →SIDR & SADR
    - →EAS
    - →PDTS
    - →Ancillary Records (coming soon)



Data flow to M2

Sourc
e



“MDR
”

Big
MDR
File

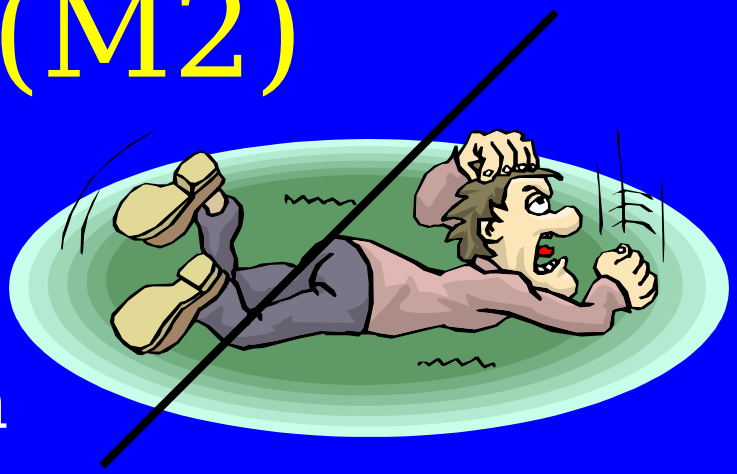
M2
File

<u>One process</u>

Saves $$$

Consistency

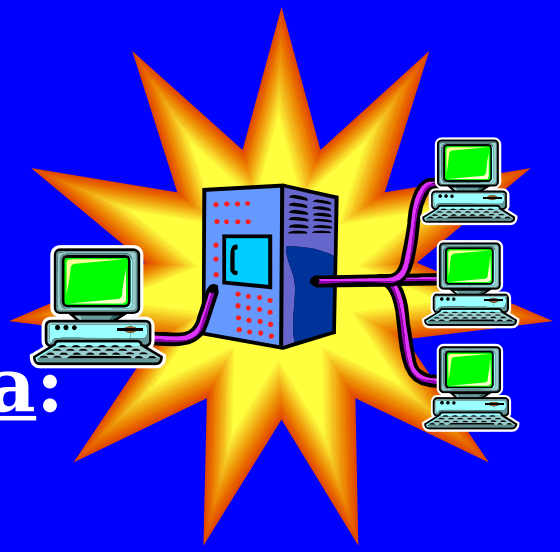
MHS Mart (M2)



<u>Easy to Use</u>:

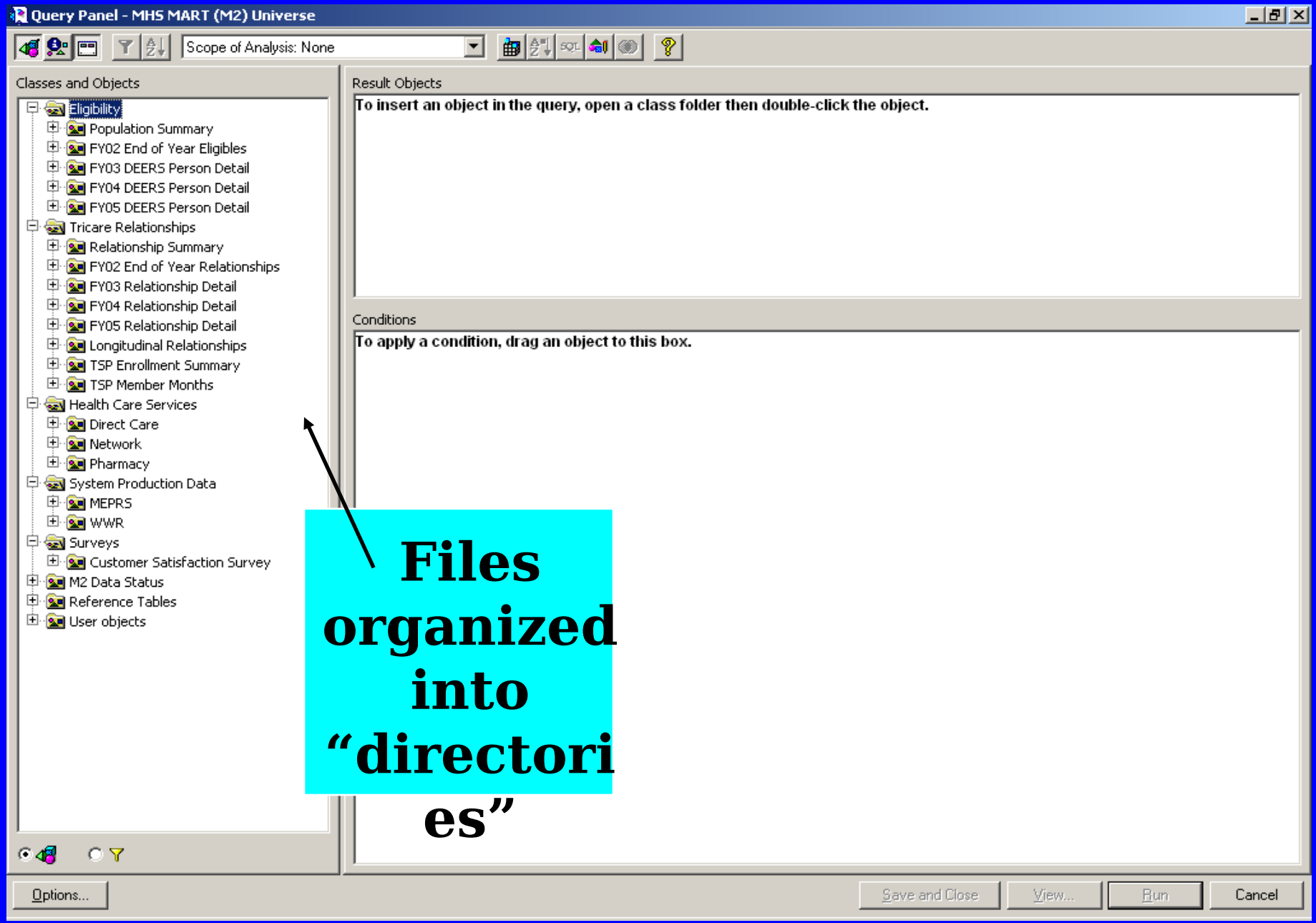
- **Point and Click Navigation**
- **Business Objects Based (SQL driven)**
- **Query tool, some spreadsheet-like capabilities**
- **Easy to get started, advanced functions may require more thought.**

M2

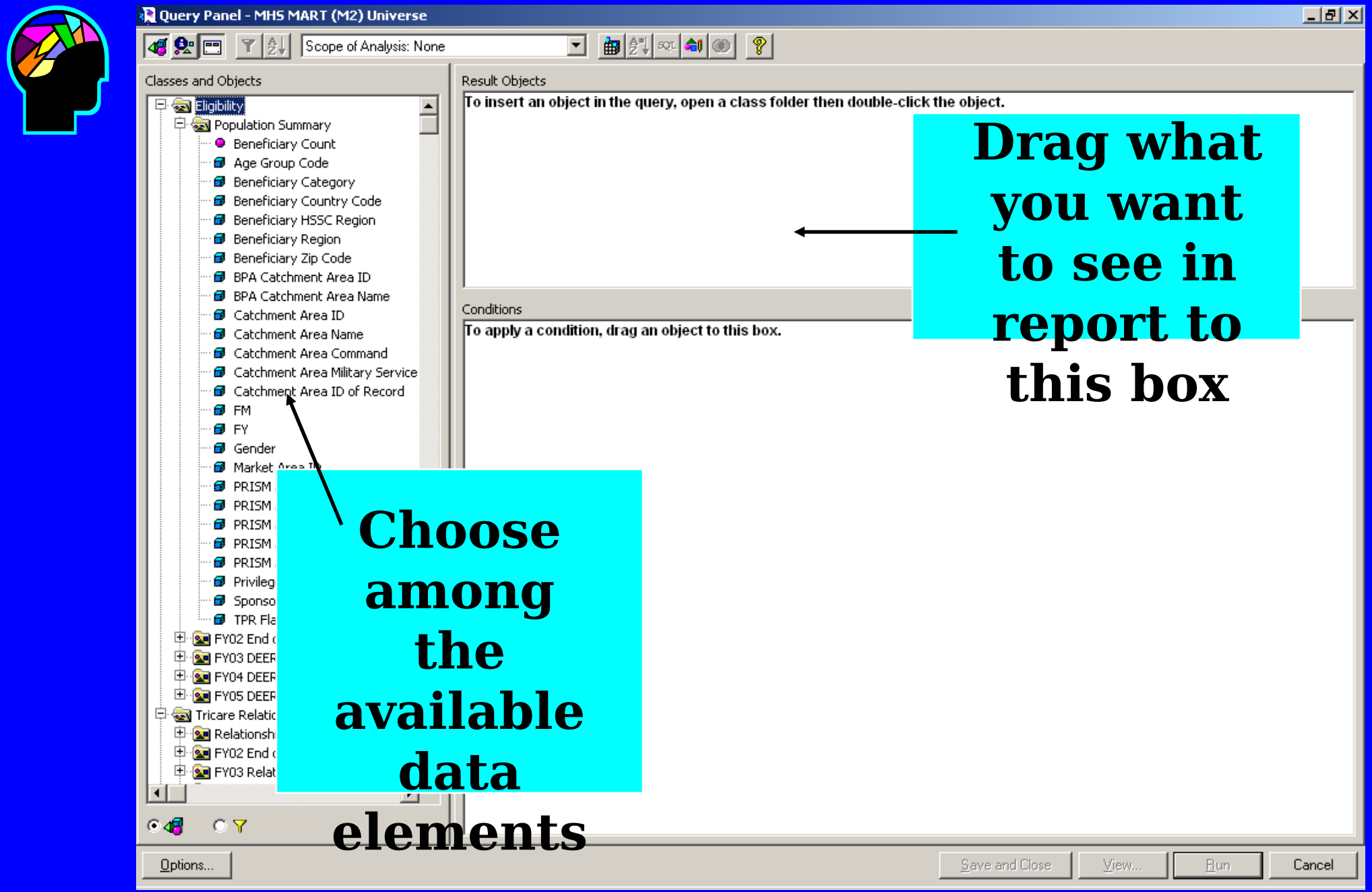


Contains a subset of MHS Data:

- **File-based structure**
- **Users construct queries using available files and data elements**
- **Contains most DHP data files, usually a subset of fields**



Files organized into “directories”


Query Panel - MHS MART (M2) Universe
Scope of Analysis: None
Classes and Objects
Eligibility
Population Summary
Beneficiary Count
Age Group Code
Beneficiary Category
Beneficiary Country Code
Beneficiary HSSC Region
Beneficiary Region
Beneficiary Zip Code
BPA Catchment Area ID
BPA Catchment Area Name
Catchment Area ID
Catchment Area Name
Catchment Area Command
Catchment Area Military Service
Catchment Area ID of Record
FM
FY
Gender
Result Objects
To insert an object in the query, open a class folder then double-click the object.
Conditions
To apply a condition, drag an object to this box.
Drag what you want to see in report to this box
Choose among the available data elements
Options...
Save and Close
View...
Run
Cancel

Query Panel - MHS MART (M2) Universe

Scope of Analysis: None

Classes and Objects

- Eligibility
  - Population Summary
    - Beneficiary Count
    - Age Group Code
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    - Beneficiary Country Code
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    - TPR Fla
  - FY02 End
  - FY03 DEER
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  - FY03 Relat

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To apply a condition, drag an object to this box.

Drag what you want to see in report to this box

List your conditions here

Choose among the available data elements

Options...

Save and Close | View... | Run | Cancel

M2

- Data in MDR/M2 used for many important initiatives, financial settlements, etc.
  - Important that corporate data are correct!
- Excellent source for data quality monitoring
  - Contains “record level data”
  - With “record IDs” that can be used to find problem records in CHCS

M2

- MDR/M2 not real time
  - Local systems provide more real-time tools for management of data capture
  - Local system experts to present in DQ Course
  - M2 is one-stop shop, easy to query, after the fact

- ***M2 accounts are available right now!!!***

Attacking Data Quality Problems

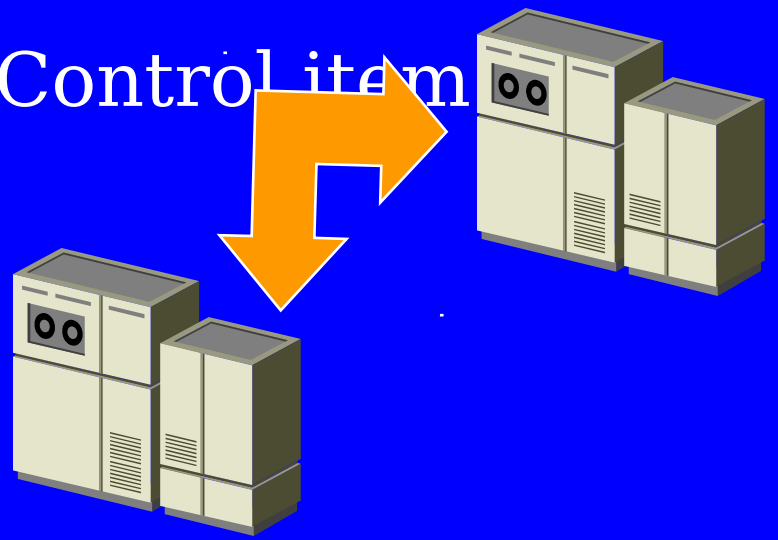
CHCS and Data Quality

- CHCS plays a major role in data quality
  - It talks to DEERS
  - It provides data to other local systems
  - It produces many file extracts
- Problems in CHCS permeate many systems and files
- Best to “get it right” at the source!

CHCS and Data Quality

- Configuration Management -- Version Control
  - Software, maintenance updates, reference tables, etc
  - Internal Management Control item
  - ng!

If you change something in one system, it can affect many others!



Configuration Management

- Reference Tables
  - Code sets, DRGs, “patcat table”, etc
  - Provide lists of allowable entries
  - Important for proper application of “business rules”
- Interface: data exchange between systems
  - Interfaces are always very specific
  - Violations of “interface” rules can break things!

“Simplified Interface” (example)

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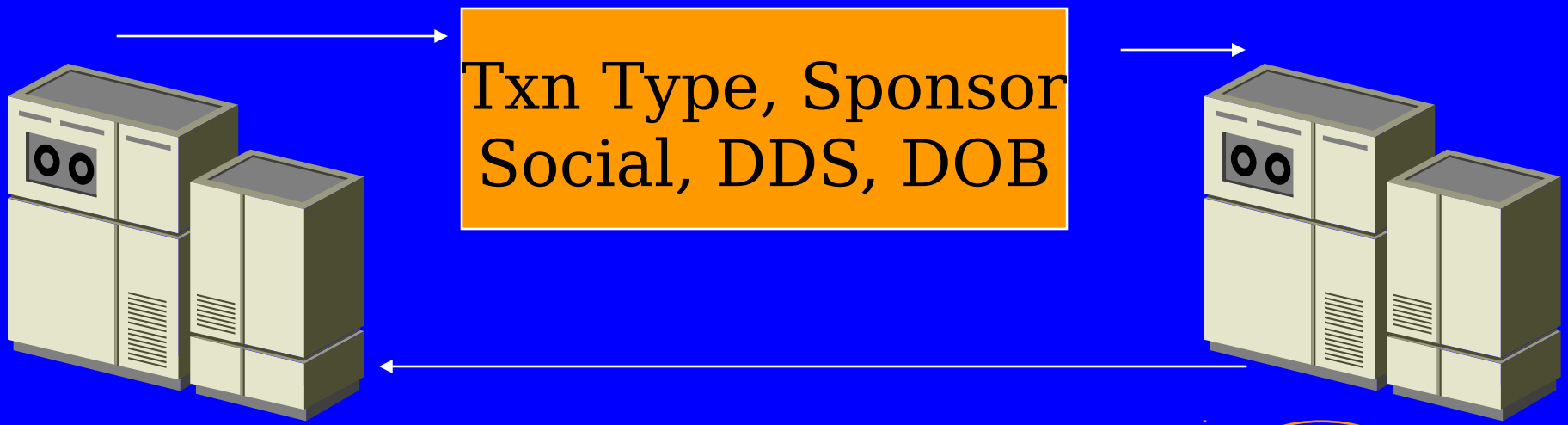

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Automatic response, DMISID, ACV

CHCS and Data Quality

- Software Maintenance Updates
  - Changes in CHCS can affect all systems that receive data from it
  - Software testing assumes users have most recent versions operating
  - Sites with older software can get “surprised” with interface problems

Symptoms of CM Problems

- Whole “types” of information missing from a record
  - Enrollment data
  - Provider data
  - Patient data
- May suggest an interface problem
- Check with affected systems administrators

Symptoms of CM Problems

- Large numbers of “rejections” in data being sent from one system to another

  - If one systems receives a code from another that it isn’t expecting, it may reject records

  - Some systems allow “hand-jamming” of data when this happens!

  - Check with S.A.

Avoiding CM Problems

- Follow Service guidance for updates to software and tables
- Plan for releases of new software; coordinate among all systems affected
- Document procedures
- Monitor implementation
- Use available resources (Help Desk, Service POCs, Peers, Interface Control Documents)

CHCS and Data Quality

- Provider Tables
  - Pseudo provider IDs (anyprov, pttech, erdoc, etc)
  - Duplicate providers
  - 910+ series providers (identify a clinic, but not the provider
- PCM Tables

CHCS and Data Quality

- Duplicate Records in Patient Registry
  - Records will be very similar, but not exactly the same
  - Will cause improper exchange of data between systems, etc..
  - CHCS has utilities to clean up duplicate records
  - Plan to run routinely. Monitor. Record.

PCM Assignment

- TNEX Contracts
  - Transition of PCM assigment from MTF to contractor
  - Most enrollees had a PCM within a month of contract start date
- Region 9/10/12 slowest to enroll
- Most MTFs with >99% of enrollees with PCM

PCM Re-assignment

- Current problems for ~20 MTFs
- “Lost Enrollment” due to PCM Assignment issues.
- Business Planning affected
- Affects other data types (SIDR, SADR, PDTS)

- DEERS reinstated enrollments and backdated them in their systems
  - We need to fix ours!

Batch Reassignment of PCMs

MTF	Sept 2004	Oct 2004	Nov 2004	Dec 2004
MTF A		15,149	12,864	15,243
MTF B		13,277	12,641	13,313
MTF C		30,660	28,116	32,285
MTF D	30,103	28,963	30,508	

MTF Data

How it’s used!

What to watch out for!

Finding, fixing problems!

Using MTF Data

- Local Use

  - Management of facility
  - **Caring for real patients**
  - Responding to higher HQ
  - Timeliness extremely important
  - (Note, does not support population view)

Using MTF Data

- Headquarters/Corporate Use
  - Financial Settlements (BPA, TFL)
  - Budgets (PPS), Staffing, Right-sizing
  - Performance Contract Measurements
  - Population Health Support
  - Precision is extremely important
  - Ability to archive

MTF Produced Data

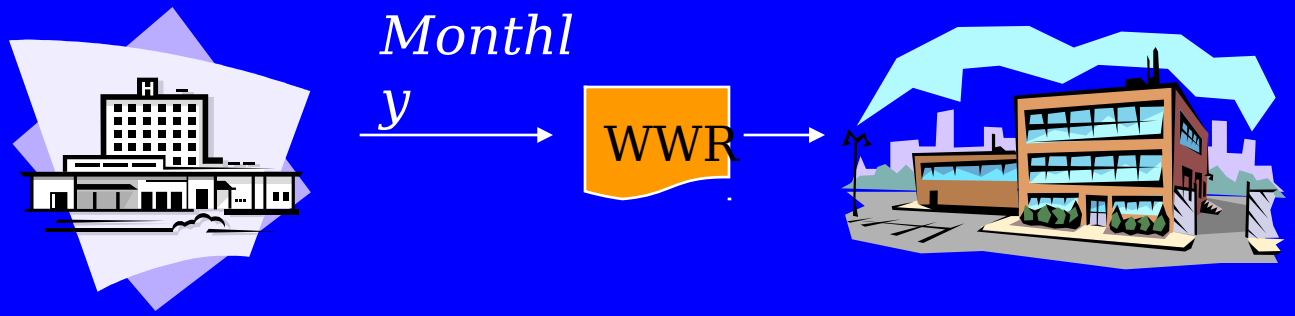
The Worldwide Workload Report

Worldwide Workload Report

- Affectionately called the “WWR”
- Report of <u>monthly workload</u>
  - Inpatient
  - Outpatient
  - Others
- Summary Data -- MTF provided care only

Worldwide Workload Report

- WWR is tabulated from CHCS
- WWR data is transmitted by MTFs to Service Information Agencies

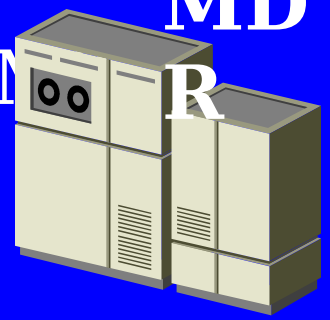


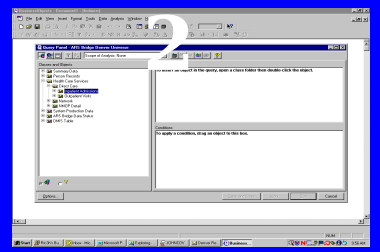
Services

- Apply corrections
- Monitor completeness
- Put in FY Files

Worldwide Workload Report

- Services send WWR to MDR and M2
- MDR “processes” WWR
  - Each service can only report workload for it’s own MTFs
  - Files are restructured for easier use
  - Extract is prepared for M





WWR Timeline

- WWR run locally; early part of month. Sent to Svc
- Svc processes and provides to MDR around 10th
- Monthly data posted to M2 around 20th
- e.g., Early September you run the WWR, which reports workload for August. That data will be visible in M2 around 20th of September

What's in the WWR

- Fiscal Year, Fiscal Month
- Treatment DMISID, Parent DMISID
- Patient Category Code (Used to create beneficiary category in M2)
- MEPRS Work Centers
- Workload Data

How is the WWR used?

- Common source for workload reporting. Often not granular enough for modern questions.
- TRICARE Bid Price Adjustments

  →MCSC bid “health care prices” many, many years in advance

  →MCSC “at risk” for their bids

  →BPA protects against **MTF workload** being “dumped” downtown…..

How is the WWR used?

- TRICARE Bid Price Adjustments

  → Reconciliation based on **trends** in how much work an MTF did

  → "Work" based on countable, outpatient visits in the WWR

  → Intensive scrutiny of WWR data by MCS Contractors

  → Problems with data lead to $$$$$ exchange

How is the WWR used?

- Benchmark

  → What will eventually completed encounter data look like?

  → WWR data comes in more timely than do encounter records

  → WWR used to estimate SIDR/SADR to completeness

Important WWR Data Quality Considerations

- End of Day Processing

  → The WWR only captures visit records where end of day processing has been completed

  → (Note end of day processing requirements in IMC)

  → If you close out new appointments after you have sent off the WWR, you must

WWR data for one MTF

Date	Visits as of June	Visits as of July
Oct-02	2,003	2,003
Nov-02	1,997	1,997
Dec-02	1,990	1,990
Jan-02	2,007	2,007
Feb-02	2,020	2,020
Mar-02	1,989	1,989
Apr-02	2,001	2,001

Note May 02, Completion of additional records, site resent, workload updated!

What counts?

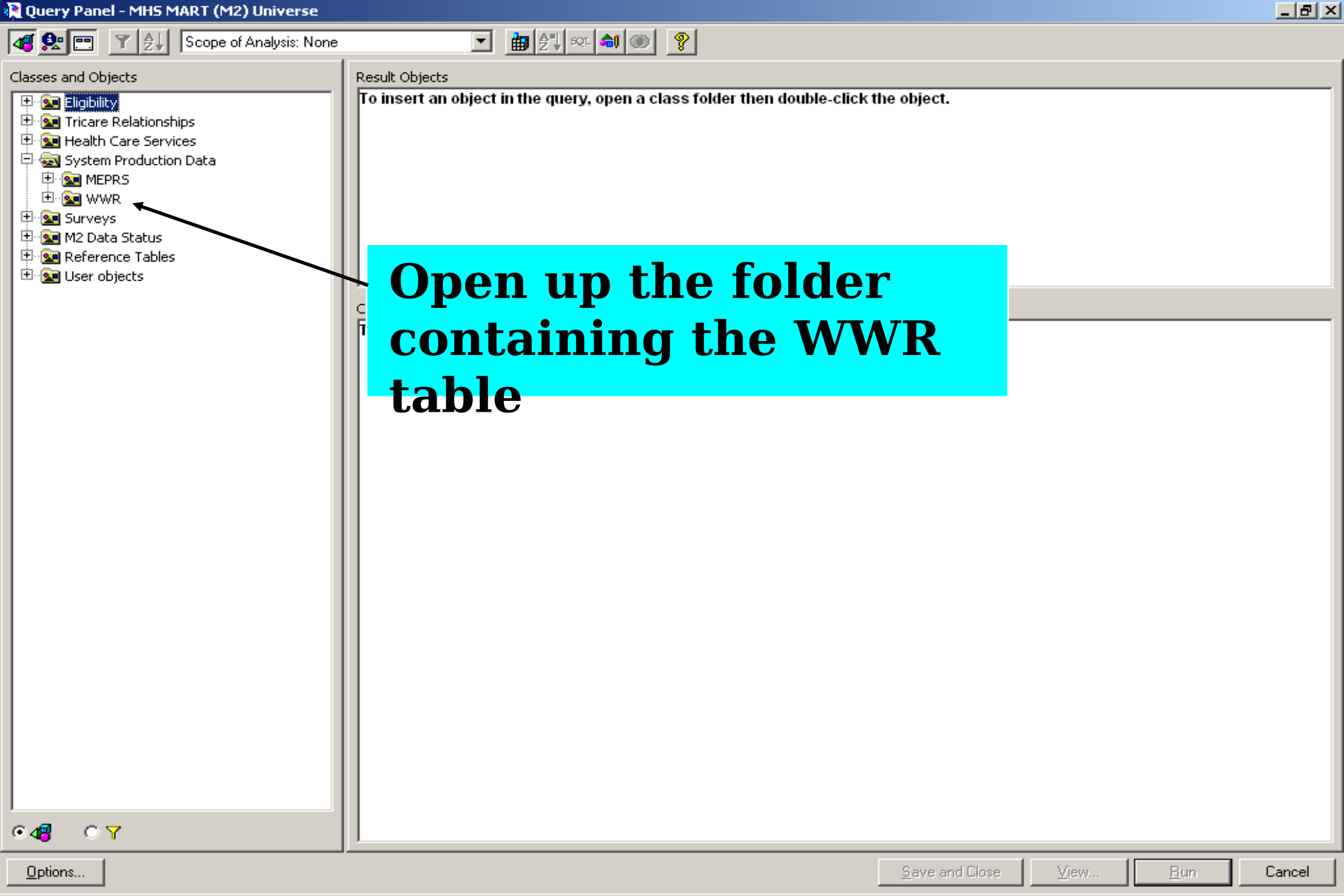
- "Countable visits"

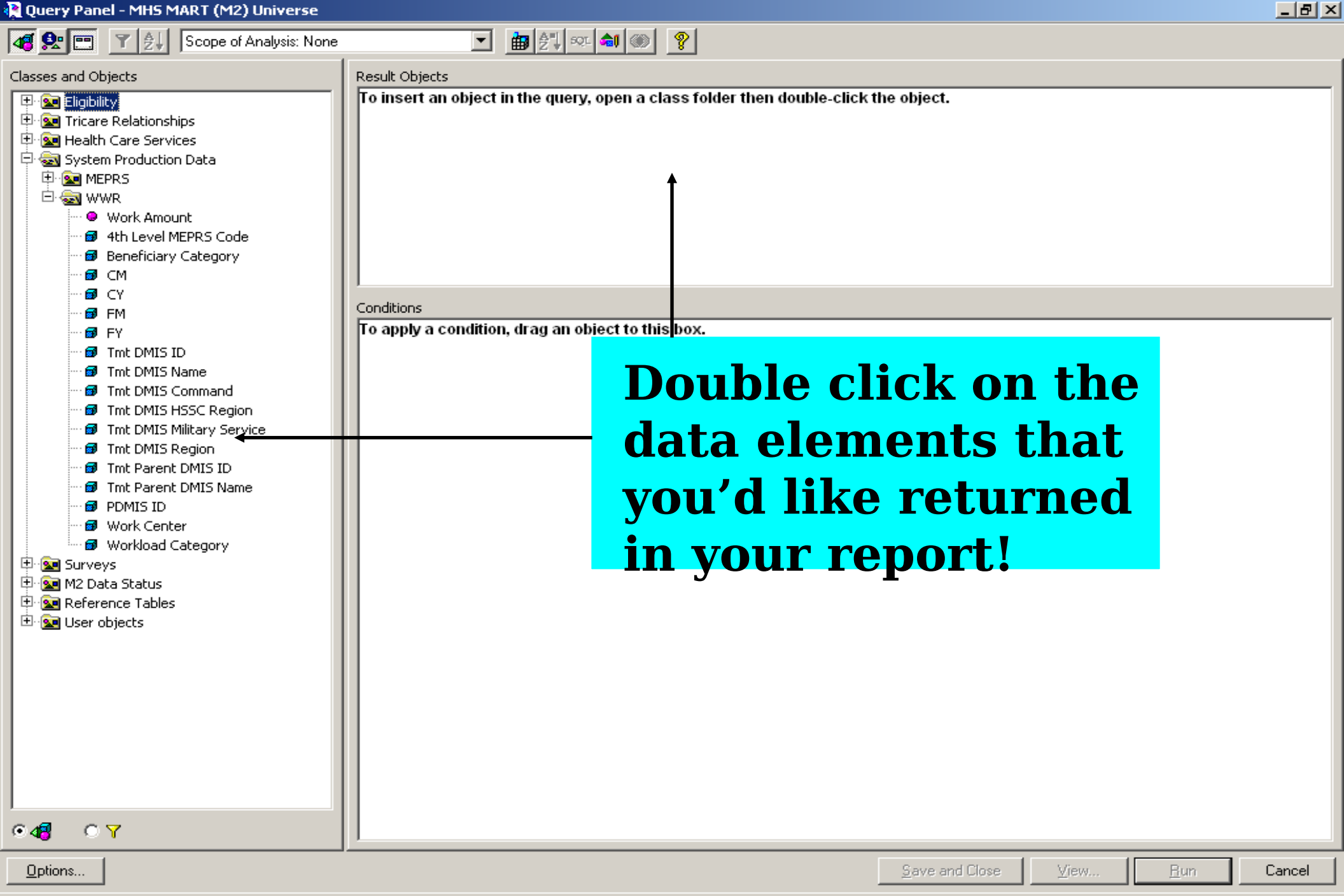
  → Only some visits count

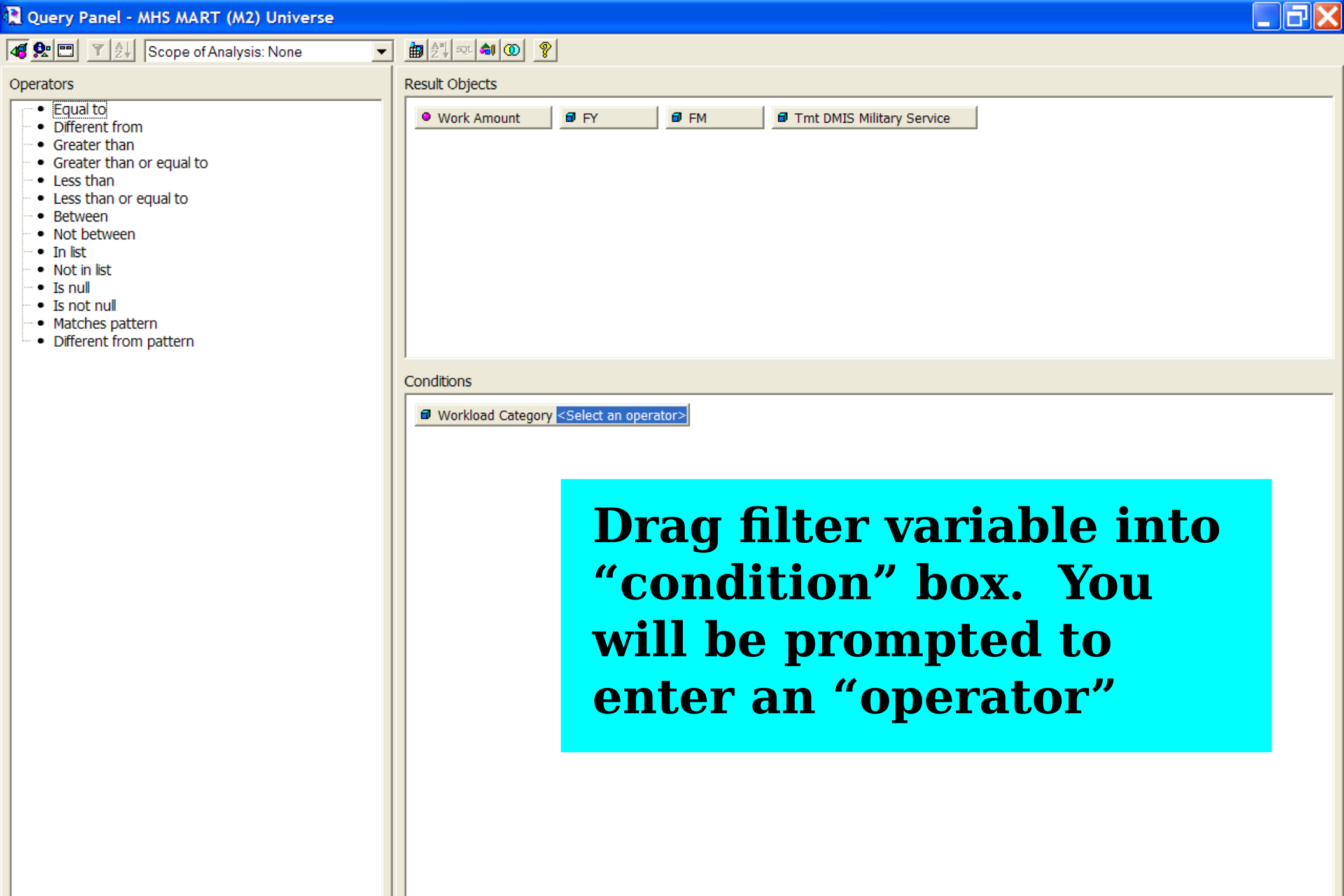
  → Count/No-Count set based on appointment template

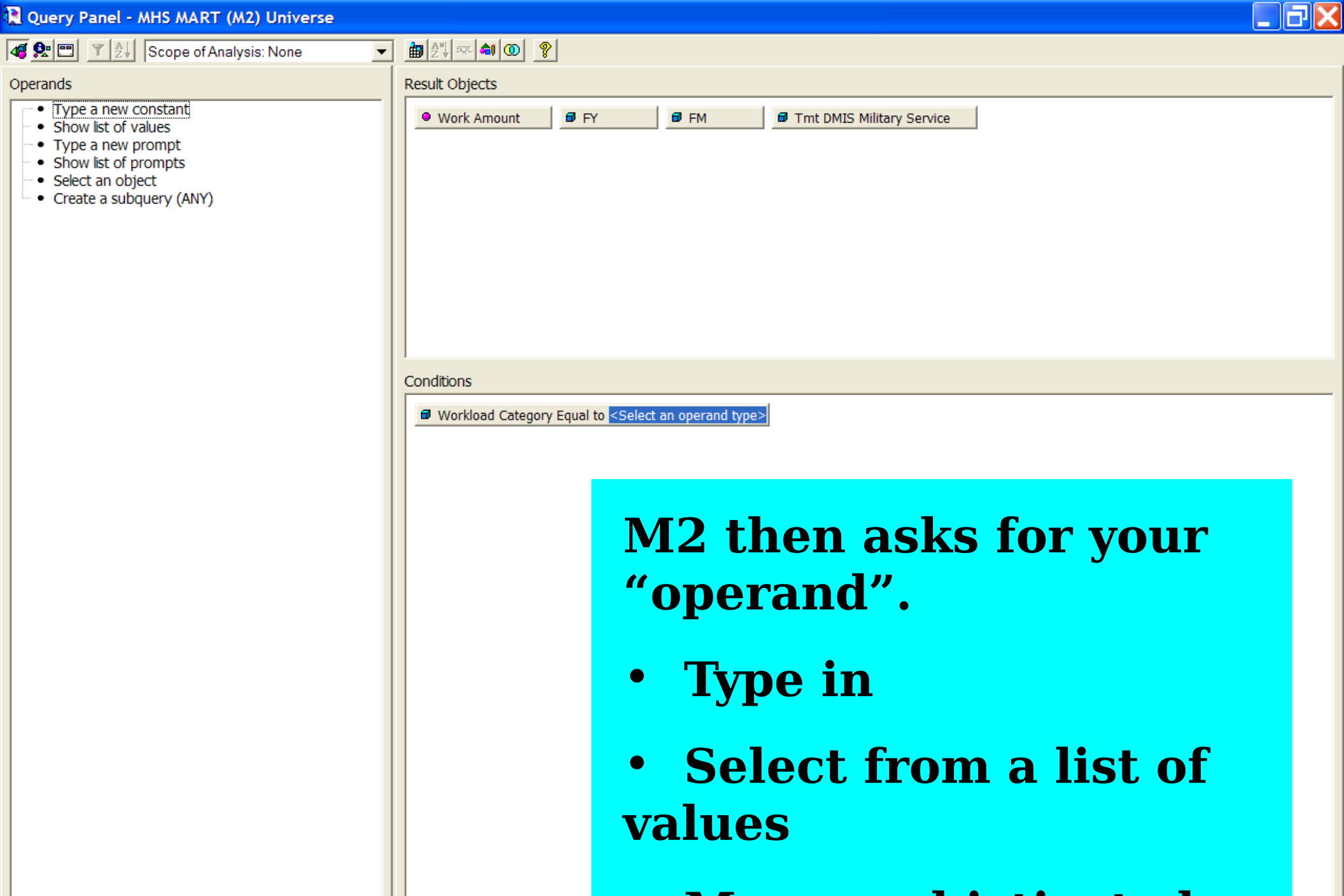
  → Changes in templates get incorporated with each new WWR run

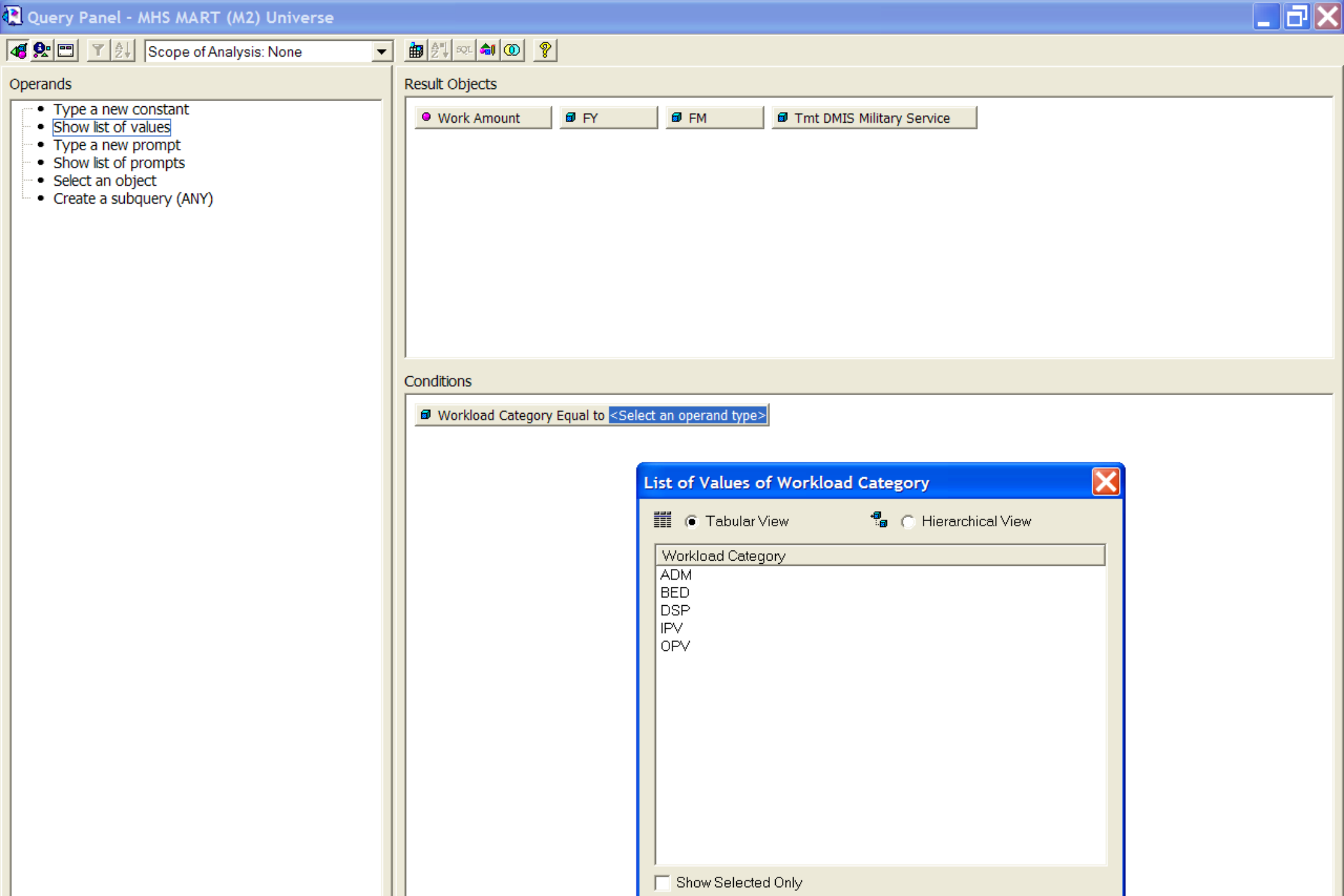
  → Changes can cause very large $$$$$$$ exchanges

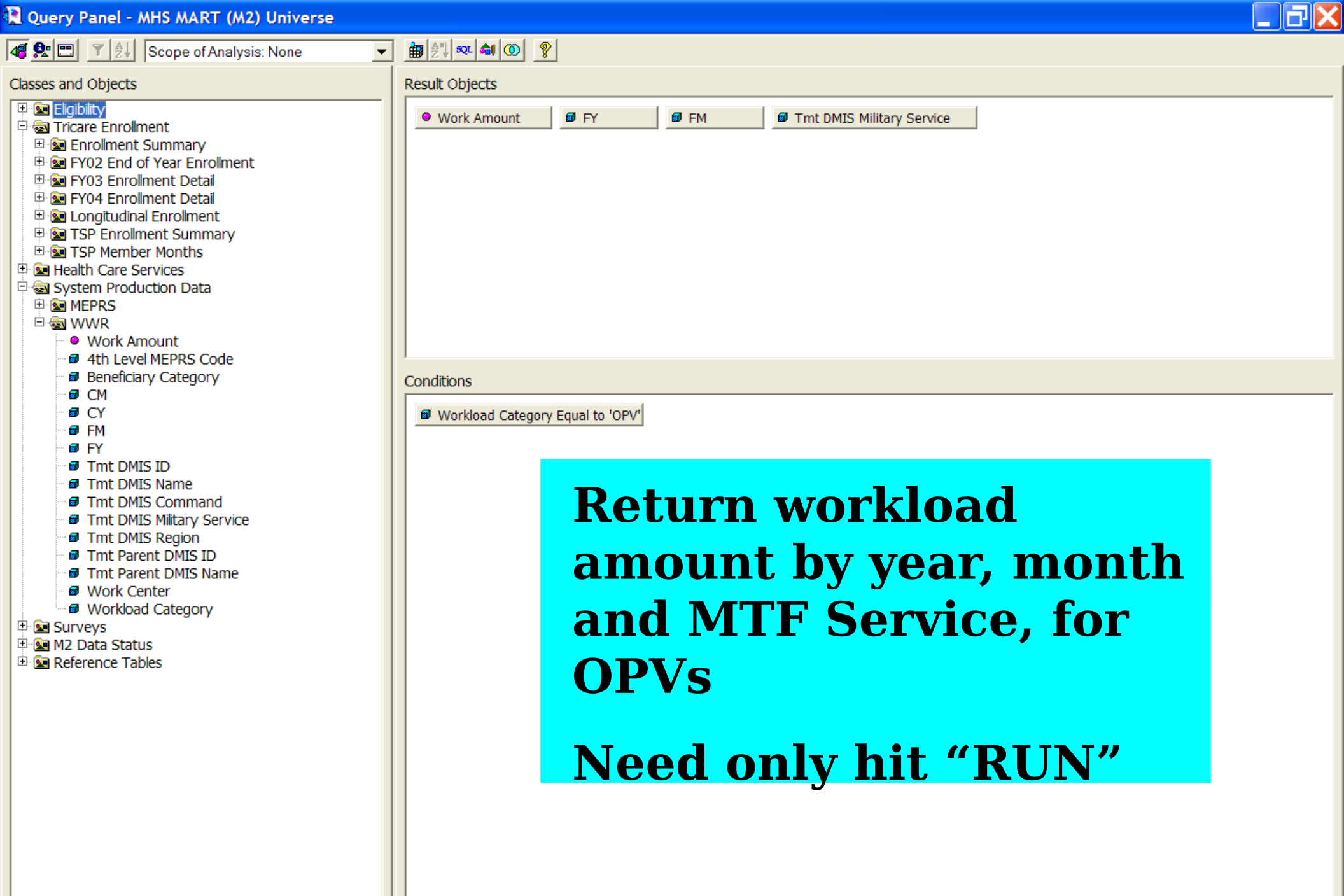

Query Panel - MHS MART (M2) Universe
Scope of Analysis: None
Classes and Objects
Eligibility
Tricare Relationships
Health Care Services
System Production Data
MEPRS
WWR
Surveys
M2 Data Status
Reference Tables
User objects
Result Objects
To insert an object in the query, open a class folder then double-click the object.
Open up the folder containing the WWR table
Options...
Save and Close
View...
Run
Cancel


Query Panel - MHS MART (M2) Universe
Scope of Analysis: None
Classes and Objects
Eligibility
Tricare Relationships
Health Care Services
System Production Data
MEPRS
WWR
Work Amount
4th Level MEPRS Code
Beneficiary Category
CM
CY
FM
FY
Tmt DMIS ID
Tmt DMIS Name
Tmt DMIS Command
Tmt DMIS HSSC Region
Tmt DMIS Military Service
Tmt DMIS Region
Tmt Parent DMIS ID
Tmt Parent DMIS Name
PDMIS ID
Work Center
Workload Category
Surveys
M2 Data Status
Reference Tables
User objects
Result Objects
To insert an object in the query, open a class folder then double-click the object.
Conditions
To apply a condition, drag an object to this box.
Double click on the data elements that you'd like returned in your report!
Options...
Save and Close
View...
Run
Cancel


Query Panel - MHS MART (M2) Universe
Scope of Analysis: None
Operators
Equal to
Different from
Greater than
Greater than or equal to
Less than
Less than or equal to
Between
Not between
In list
Not in list
Is null
Is not null
Matches pattern
Different from pattern
Result Objects
Work Amount
FY
FM
Tmt DMIS Military Service
Conditions
Workload Category
<Select an operator>
Drag filter variable into "condition" box. You will be prompted to enter an "operator"


Query Panel - MHS MART (M2) Universe
Scope of Analysis: None
Operands
Type a new constant
Show list of values
Type a new prompt
Show list of prompts
Select an object
Create a subquery (ANY)
Result Objects
Work Amount
FY
FM
Tmt DMIS Military Service
Conditions
Workload Category Equal to <Select an operand type>
M2 then asks for your "operand".
• Type in
• Select from a list of values


Query Panel - MHS MART (M2) Universe
Scope of Analysis: None
Operands
Type a new constant
Show list of values
Type a new prompt
Show list of prompts
Select an object
Create a subquery (ANY)
Result Objects
Work Amount
FY
FM
Tmt DMIS Military Service
Conditions
Workload Category Equal to <Select an operand type>
List of Values of Workload Category
Tabular View
Hierarchical View
Workload Category
ADM
BED
DSP
IPV
OPV
Show Selected Only


Query Panel - MHS MART (M2) Universe
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Eligibility
Tricare Enrollment
Enrollment Summary
FY02 End of Year Enrollment
FY03 Enrollment Detail
FY04 Enrollment Detail
Longitudinal Enrollment
TSP Enrollment Summary
TSP Member Months
Health Care Services
System Production Data
MEPRS
WWR
Work Amount
4th Level MEPRS Code
Beneficiary Category
CM
CY
FM
FY
Tmt DMIS ID
Tmt DMIS Name
Tmt DMIS Command
Tmt DMIS Military Service
Tmt DMIS Region
Tmt Parent DMIS ID
Tmt Parent DMIS Name
Work Center
Workload Category
Surveys
M2 Data Status
Reference Tables
Result Objects
Work Amount
FY
FM
Tmt DMIS Military Service
Conditions
Workload Category Equal to 'OPV'
Return workload amount by year, month and MTF Service, for OPVs
Need only hit “RUN”

MTF Outpatient Countable Visits From WWR, by Service

	A	F	N
200	13,494,23	9,604,57	8,878,51
200	13,326,01	8,429,33	8,880,47
200	13,257,70	7,618,05	9,321,85
200	13,399,75	7,358,16	9,101,50
200	13,615,81	7,345,43	9,103,54
200	3,281,81	1,687,34	2,104,63

Timeframes and the WWR

Work Center	Admit	Days	Disp
Peds R/S	11-May	3	
Cardiology		13	
Cardio-Thoracic Surgery		6	
Peds - not R/S		1	2-Jun
Total Stay:		23	

Patient Record View

WWR View

WWR Workload	May	June
Admissions	1	
Dispositions		1
Days	22	1

Timeframes and the WWR

- WWR reports monthly workload!
- Currently, best source for measuring monthly workload factors is WWR
  - Appointment Data to be used in future
- Not a good source for average length of stay calculations

Parents and Children

- Parent/Child relationships among MTFs
- Captured in “DMISID” Table with monthly update
- M2 receives “Child” DMISID in it’s WWR data feed
- M2 limitation: Calculates a “parent” based on the child DMISID, the FY and the M2 DMISID Table

Parents and Children

- If you changed parent/child structure throughout the year, WWR in M2 will not use the “old way”, will only reflect “new way”
- Can cause problems comparing local data with corporate data
- Just use child DMISID to analyze corporate data

Parents and Children; example

Early Part of FY		**Later in FY**	
Parent	Child	Parent	Child
5001	5001	5001	5001
5001	5002	5002	5002
5001	5003	5002	5003

Realignment within a fiscal year!

Parents and Children

- DMISID 5002 and 5003 realigned. Used to fall under 5001.
- If you run a report for Parent DMISID 5001 in

Early Part			**After realignment**		
Parent	Child	Visits	Parent	Child	Visits
5001	5001	10,000	5001	5001	10,000
5001	5002	8,000			
5001	5003	6,000			
		24,000			**10,000**

Visits not lost, they just show up under different parent

Taking Care of your WWR

- Complete EOD Processing as required
- Monitor compliance locally; especially as WWR run-time nears
- Notify staff where records need to be completed, allow enough time to get done before submitting WWR..
- Consider carefully the effects of changes to count/no-count in appointment template
- Monitor locally and in corporate systems!

Taking Care of your WWR

- M2 Monitoring
- Set up a report that can refresh monthly (won't have to re-create your work)
- Look at the workload measures at your MTF
- Fiscal year * Month
- Run full year totals and watch months of data over time.

Taking Care of your WWR

- Compare M2 results with local results (monthly statistical report)
- Parent/child issue: Just use child level dmisids if your facility has had a realignment.
- Timing: Local data will be more timely.

  →Run local reports right after you run WWR

  →Compare with M2 reports published around the 20th of each month

  →Use M2 “Data Status Table” to confirm timing of data

If you find a problem

- M2 data should not be different from local data.

  →MDR/M2 do not change data!

  →Allowing for parentage, timing, should be able to match 100%

- Re-check local sources; check parent issue, timing

- If still a problem, contact Service representative, open MHS Help Desk Ticket

The Standard Inpatient Data Record (SIDR)

Standard Inpatient Data Record

- Some CHCS functionality supporting inpatient care
  - → Patient registry
  - → Admitting/Discharging
  - → Ordering
  - → Data Capture
  - → Grouping
  - → Billing

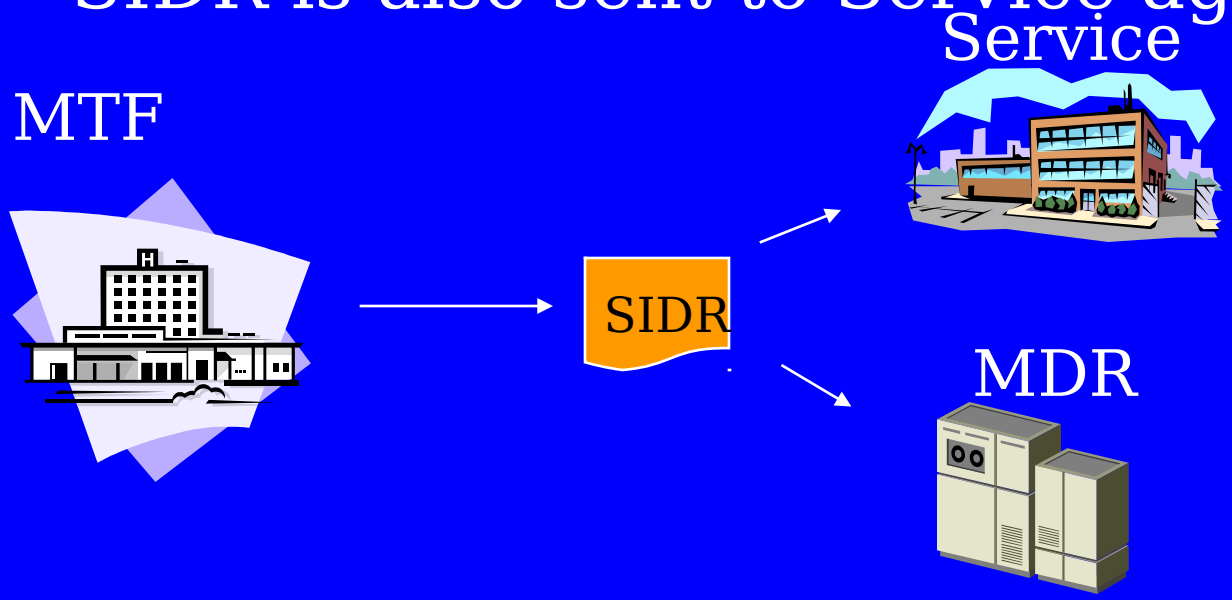
CHCS captures data while it provides operational support to the MTF.

Standard Inpatient Data Record

- SIDR: prepared from data captured during the stay
- SIDR file extracted from CHCS Monthly (bi-monthly for Army)
- Each SIDR contains data from many different CHCS files
- SIDR “Key”: MTF DMISID + Patient Register Number

Standard Inpatient Data Record

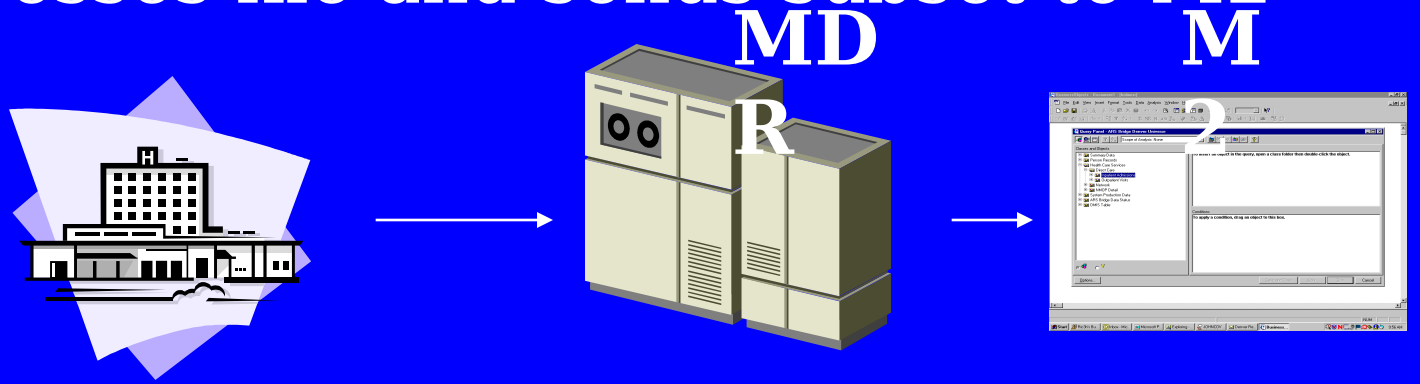
- SIDR file is transmitted by MTFs directly to EI/DS
- SIDR is also sent to Service agenci



The same data sent both places

Standard Inpatient Data Record

- SIDR file contains prior month's activity for that MTF
  - New records
  - Updates
- MDR processes file and sends subset to M2

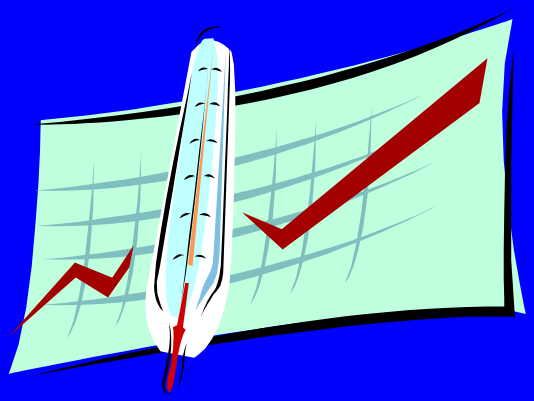


SIDR Timeline

- SIDR extract sent to MDR between 5th and 10th of each month
- New records, updates and cancellations posted to M2 files at end of month
- e.g., Early September you send off a SIDR file, which reports workload for August. That data will be visible in M2 the end of Septem

What's in the SIDR?

- Each SIDR represents an inpatient event
- Abridged "patient record"
- Information about:
  - → the patient
  - → the care that was provided
  - → the providers of care
  - → administrative data



How is the SIDR used?

- **Prospective Payment Fee For Service (PPS FFS)**

  → MTFs earn $$ based on care provided

  → Money based on SIDR coded workload and local market prices

  → Earnings based on RWPs, which are based in **DRGs**!

  → Ungroupable DRGs (469/470) get NO CREDIT!

How is the SIDR used?

- TRICARE for Life Earnings (TFL)
  - → DHP decremented for value of care provided seniors
  - → Earns the money back by caring for seniors
  - → Earnings based on **DRG** and on "prices"
  - → Ungroupable DRGs do not earn money back!
  - → (More on prices later!)

How is the SIDR used?

- TRICARE Bid Price Adjustment

  → Reconciliation can be based on shifts in case mix between direct and “downtown” care

  → “Opposite directions”

  → Case mix based on **DRG**, length of stay, and administrative data

How is the SIDR used?

- DHP Performance Contract

  → Required performance metric program

  → USD/P&R actively reviewing DHP performance indicators

  → Performance Goals established for each indicator

  → SIDR serves as the primary source of inpatient data

How is the SIDR used?

- Some metrics that use the SIDR

  → Preventable Admission Rates

  → Bed Days per 1000

  → % RWPs in direct care system (market share)

How is the SIDR used?

- Population health initiatives

  → Prevention programs, HEDIS-like performance measurement

  → SIDR to find beneficiaries who need certain tests, medications, etc

  → (% of patients receiving a beta blocker after heart attack… use SIDRs to find heart attack patients, then search pharmacy records to find evidence of a beta blocker!)

Important SIDR Data Quality Considerations

- Files and Tables
  - → **Encoder Grouper, ICD9-CM Code sets**
  - → Fiscal year updates
  - → Update CHCS as soon as new tables available
  - → IMC Checklist Item
  - → Delays interrupt work/data flows.

Important SIDR Data Quality Considerations

- Clinical Coding

  → The clinical codes used should be documented on hard copy record

  → All relevant diagnoses/procedures

  → Watch for under-coding

- See DQ Homepage for coding references
- Service assistance, UBO, UBU

Important SIDR Data Quality Considerations

- Clinical Coding - Finding coding problems
  - → Properly coded records should “group”
  - → Ungroupable DRGS: 469/470
  - → Can run reports to isolate ungroupable DRGs
  - → Include “SIDR Key” in queries to isolate the problem records and fix them!

Important SIDR Data Quality Considerations

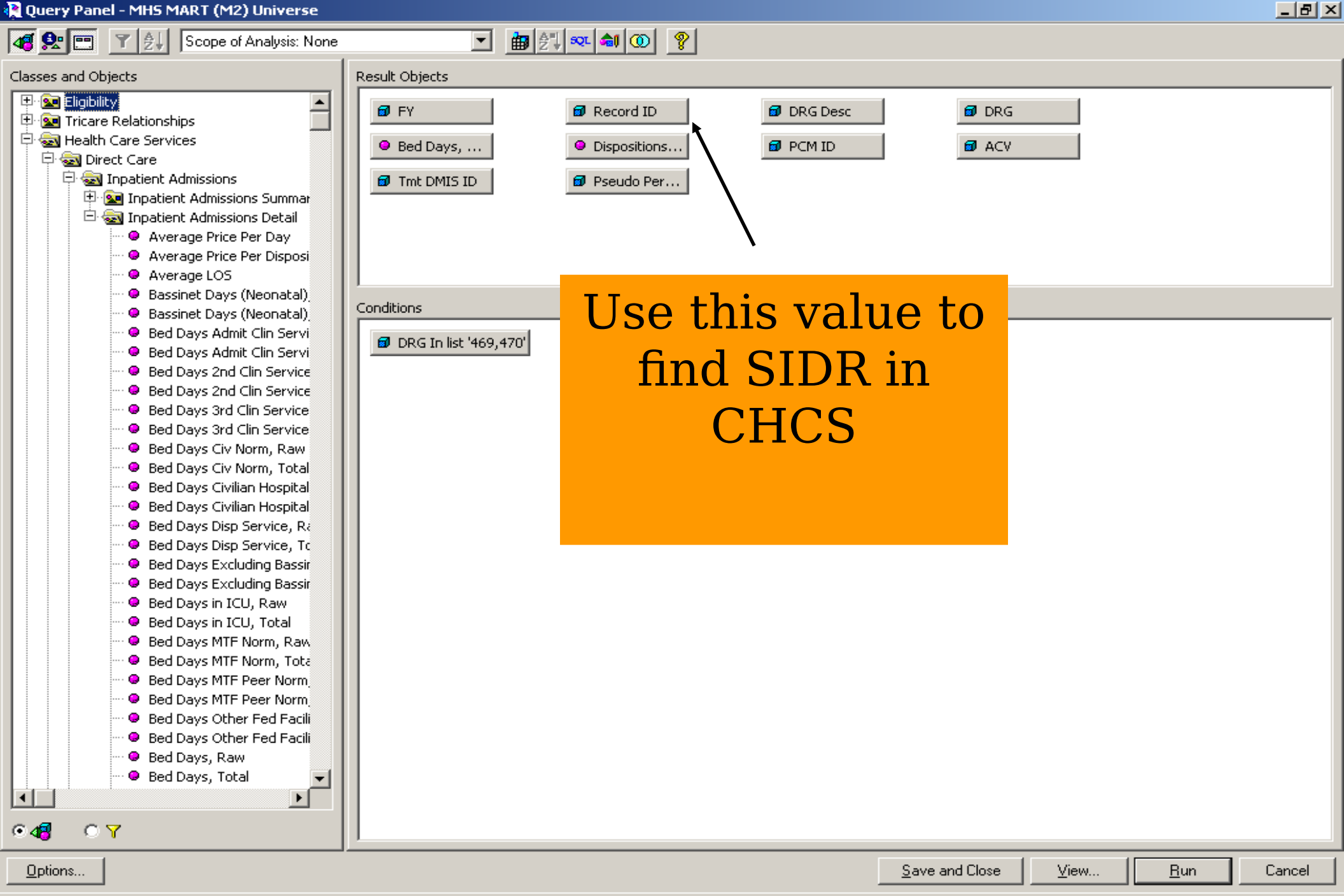
- Clinical Coding

  → Diagnosis and Procedure Codes

  → Used in **DRG Grouping**, Case Mix Assignment

  → Primary means to identify types of services provided in our MTFs

  → Required review of a sample of records for IMC Program


Query Panel - MHS MART (M2) Universe
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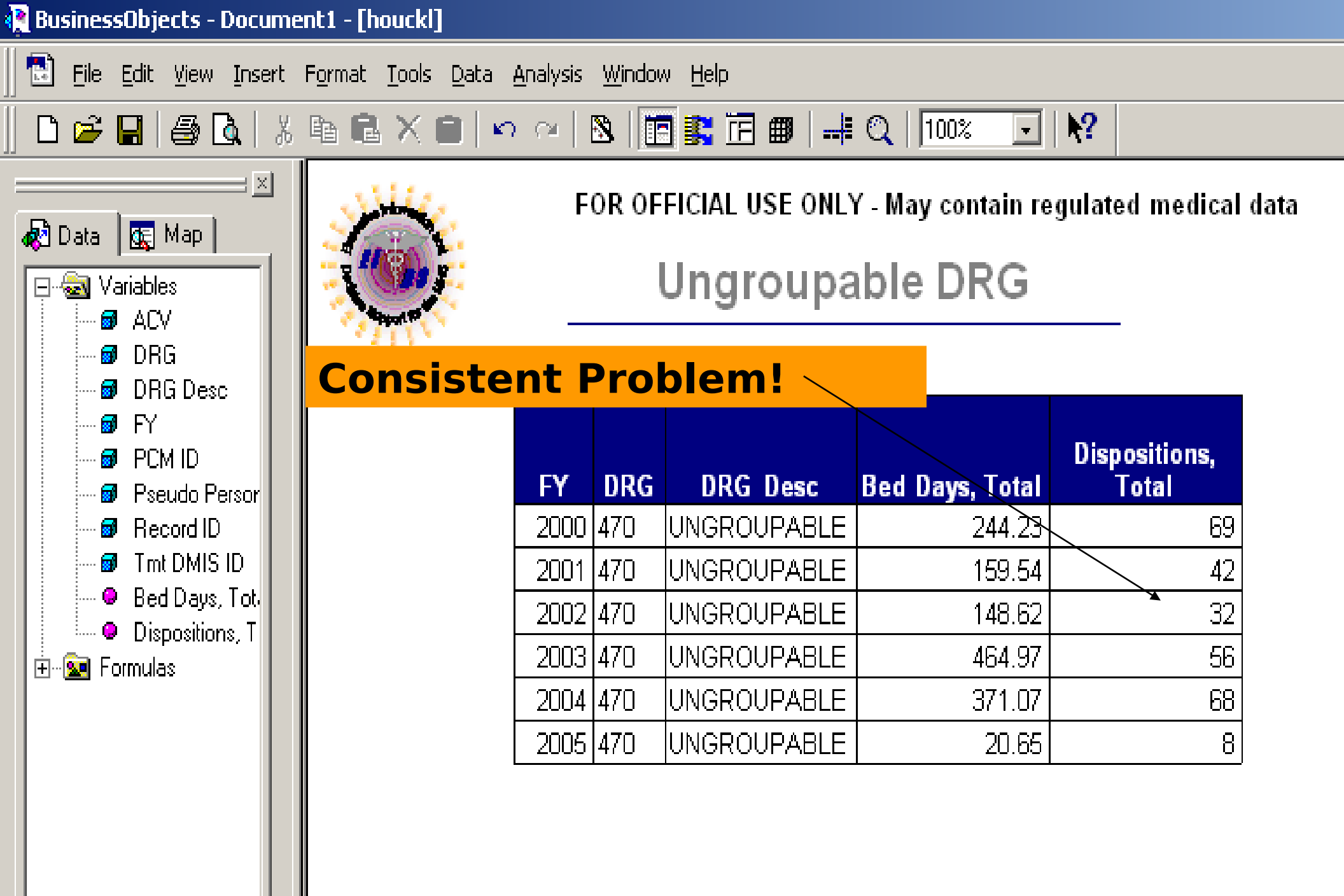
Classes and Objects
Eligibility
Tricare Relationships
Health Care Services
Direct Care
Inpatient Admissions
Inpatient Admissions Summar
Inpatient Admissions Detail
Average Price Per Day
Average Price Per Disposi
Average LOS
Bassinet Days (Neonatal)
Bassinet Days (Neonatal)
Bed Days Admit Clin Servi
Bed Days Admit Clin Servi
Bed Days 2nd Clin Service
Bed Days 2nd Clin Service
Bed Days 3rd Clin Service
Bed Days 3rd Clin Service
Bed Days Civ Norm, Raw
Bed Days Civ Norm, Total
Bed Days Civilian Hospital
Bed Days Civilian Hospital
Bed Days Disp Service, Ra
Bed Days Disp Service, To
Bed Days Excluding Bassir
Bed Days Excluding Bassir
Bed Days in ICU, Raw
Bed Days in ICU, Total
Bed Days MTF Norm, Raw
Bed Days MTF Norm, Tota
Bed Days MTF Peer Norm
Bed Days MTF Peer Norm
Bed Days Other Fed Facili
Bed Days Other Fed Facili
Bed Days, Raw
Bed Days, Total
Result Objects
FY
Record ID
DRG Desc
DRG
Bed Days, ...
Dispositions...
PCM ID
ACV
Tmt DMIS ID
Pseudo Per...
Conditions
DRG In list '469,470'
Use this value to find SIDR in CHCS
Options...
Save and Close
View...
Run
Cancel


BusinessObjects - Document1 - [houckl]
File Edit View Insert Format Tools Data Analysis Window Help
100%
Data
Map
Variables
ACV
DRG
DRG Desc
FY
PCM ID
Pseudo Persor
Record ID
Tmt DMIS ID
Bed Days, Tot
Dispositions, T
Formulas
FOR OFFICIAL USE ONLY - May contain regulated medical data
Ungroupable DRG
Consistent Problem!
FY | DRG | DRG Desc | Bed Days, Total | Dispositions, Total
2000 | 470 | UNGROUPABLE | 244.23 | 69
2001 | 470 | UNGROUPABLE | 159.54 | 42
2002 | 470 | UNGROUPABLE | 148.62 | 32
2003 | 470 | UNGROUPABLE | 464.97 | 56
2004 | 470 | UNGROUPABLE | 371.07 | 68
2005 | 470 | UNGROUPABLE | 20.65 | 8

BusinessObjects - Document1 - [houckl]

File Edit View Insert Format Tools Data Analysis Window Help

100%

Data | Map

- Variables
  - ACV
  - DRG
  - DRG Desc
  - FY
  - PCM ID
  - Pseudo Persor
  - Record ID
  - Tmt DMIS ID
  - Bed Days, Tot
  - Dispositions, T
- Formulas

Would be Accrual Fund Losses!

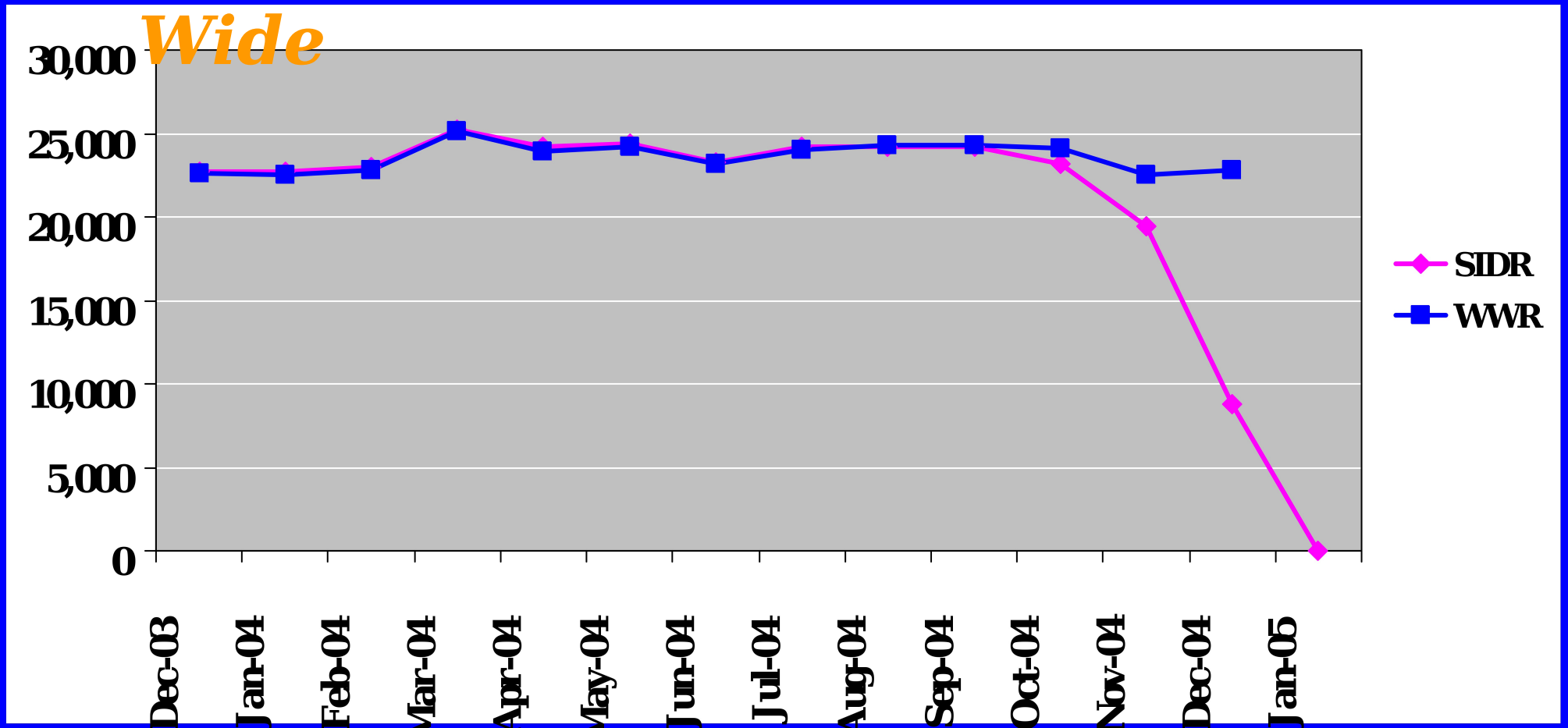
FOR OFFICIAL USE ONLY - May contain regulated medical data

Ungroupable DRG

FY	DRG	DRG Desc	Record ID	Tmt DMIS ID	Bed Days, Total	Dispositions, Total
2003	470	UNGROUPABLE	6390621	0	115.00	1
2003	470	UNGROUPABLE	6129589	0	73.89	1
2004	470	UNGROUPABLE	0663769	0	65.00	1
03	470	UNGROUPABLE	4138050	0	58.00	1
03	470	UNGROUPABLE	0578922	0	49.59	1
04	470	UNGROUPABLE	6412683	0	43.00	1
00	470	UNGROUPABLE	6080500	0	29.00	1
01	470	UNGROUPABLE	6377653	0	27.00	1
02	470	UNGROUPABLE	0600390	0	25.00	1
2002	470	UNGROUPABLE	1242682	0	23.00	1
2003	470	UNGROUPABLE	0205877	0	23.00	1
2004	470	UNGROUPABLE	0344341	0	22.00	1
2004	470	UNGROUPABLE	0346406	0	21.51	1
2004	470	UNGROUPABLE	6404108	0	20.00	1

Quality Considerations - Timeliness

SIDR vs WWR, MHS Wide



Important SIDR Data Quality Considerations

- Timeliness

  → 30 day standard for completing inpatient record

  → "D" record status

  → IMC Checklist Item

  → Use local CHCS reports to manage completeness - try to get done by 5th of month to be included in monthly transmission

Important SIDR Data Quality Considerations

- Completeness

  → Getting a record for every event

  → Not generally a large problem for inpatient data

  → Compare number SIDRs with WWR dispositions to assess completeness

  → M2 supports multi-source looks at the data; run # dispositions from SIDR and WWR tables and compare

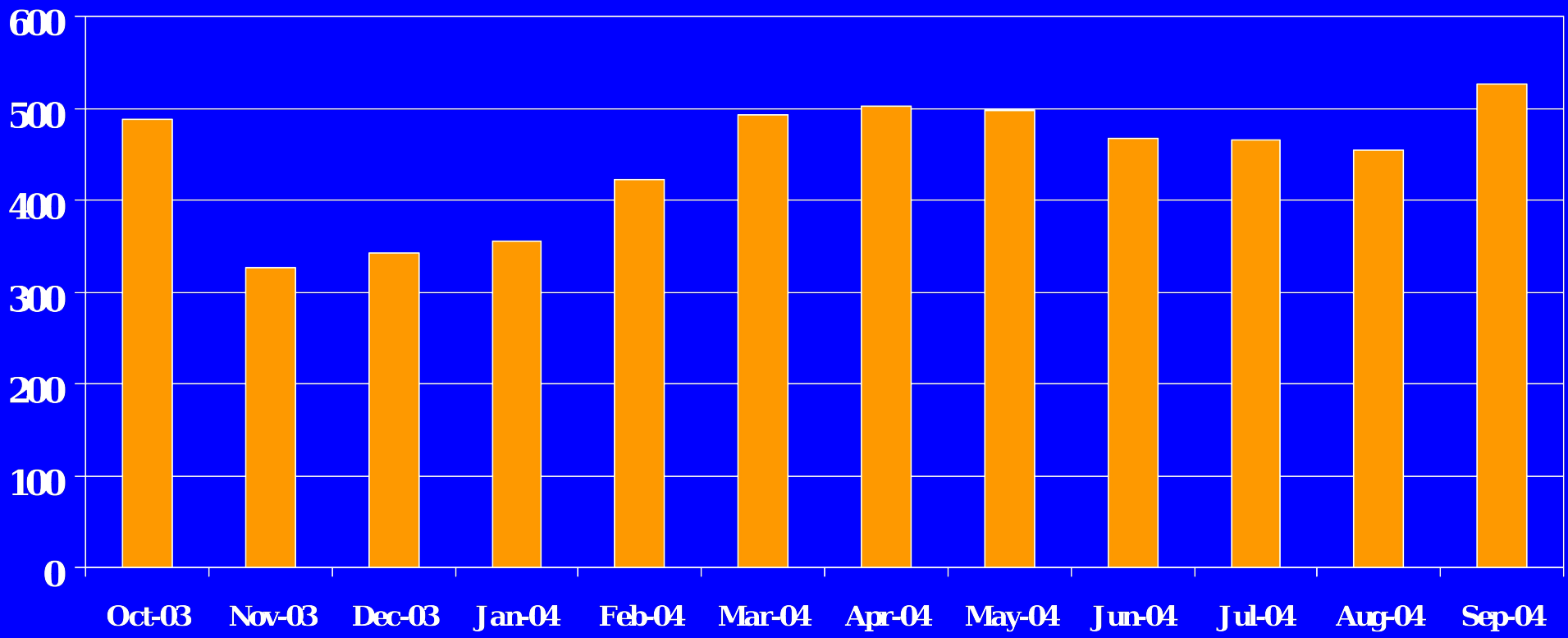
Important SIDR Data Quality Considerations

- Bed Days, where admission date = disposition date

	#with 0 LOS	#with 1 LOS
Army MTFs	454	27,781
Air Force MTFs	98	13,626
Navy MTFs	106	19,921

Important SIDR Data Quality Considerations

- Holes in the data



Local and Corporate "SIDR" data

- M2 data can differ from local data in three ways:

  → Timing: CHCS will always have more timely data; it's the data capture system

  → DRGs: CHCS uses Encoder Grouper software to do DRGs. Data regrouped in MDR using CHAMPUS Grouper software

  → Enrollment Data: MDR re-assigns enrollment data (ACV, DMISID) per DEERS files

CHCS Grouped SIDR vs. MDR Grouped SIDR - FY02

	Changed	Total SIDR	% of Total
Army	221	99836	0.22%
Air Force	115	49948	0.23%
Navy	131	71163	0.18%

- Not entirely an encoder grouper issue
- Ensure that grouping is re-done locally if underlying data changes

CHCS RWP vs. MDR RWP - FY02

SVC	MDR RWP	CHCS RWP	Difference
A	119.618	115.054	4.564
F	58.605	56.284	2.320
N	74.995	72.152	2.843
ALL:	253.217	243.490	9.727

- MDR re-groups SIDR, reassigns RWP using valid rule sets
- Differences can be related to DRG Grouping, or improper tables in CHCS

The Standard Ambulatory Data Record (SADR)

Standard Ambulatory Data Record

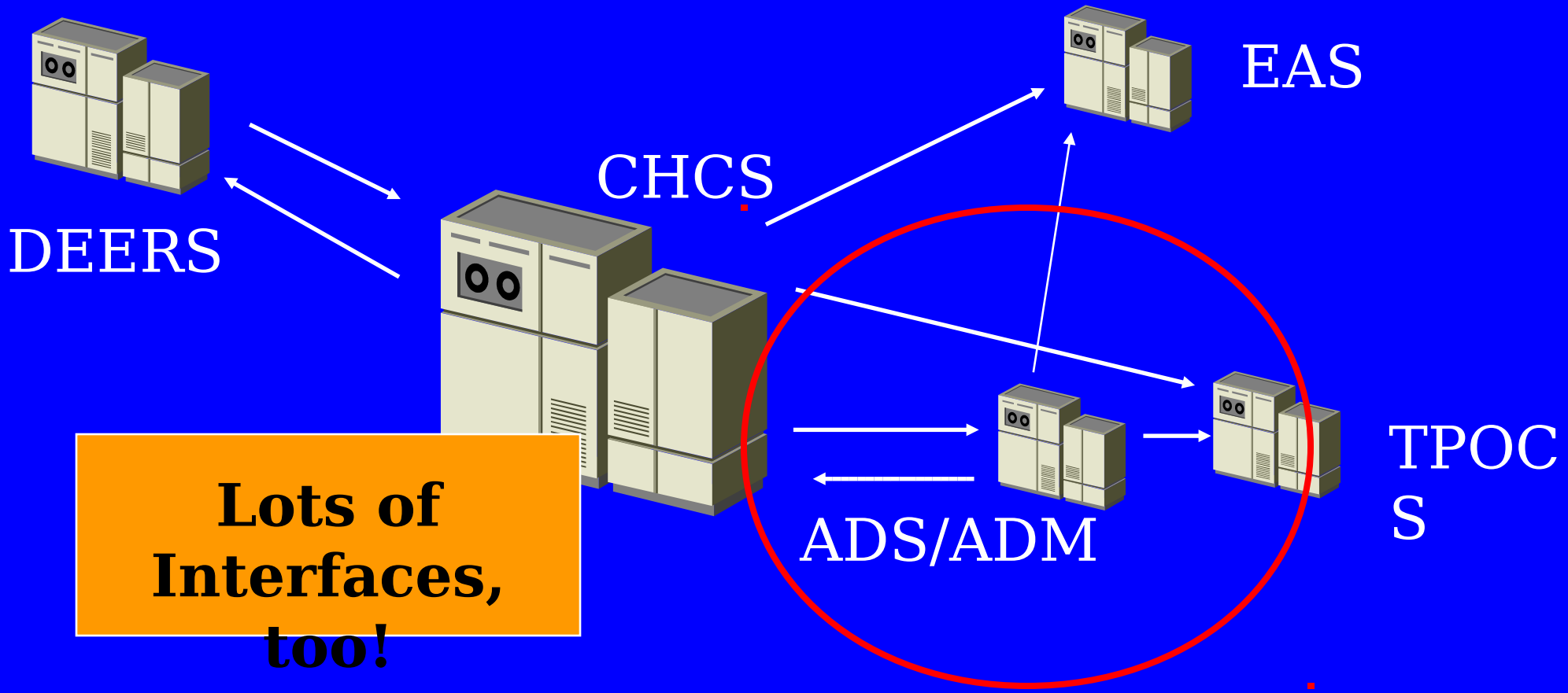
- Ambulatory Data System captures ambulatory data

  → CHCS sends appt, provider data to ADS/ADM

  → Data capture in ADM

  → ADM recently better integrated with CHCS…

CHCS is the local “Hub”

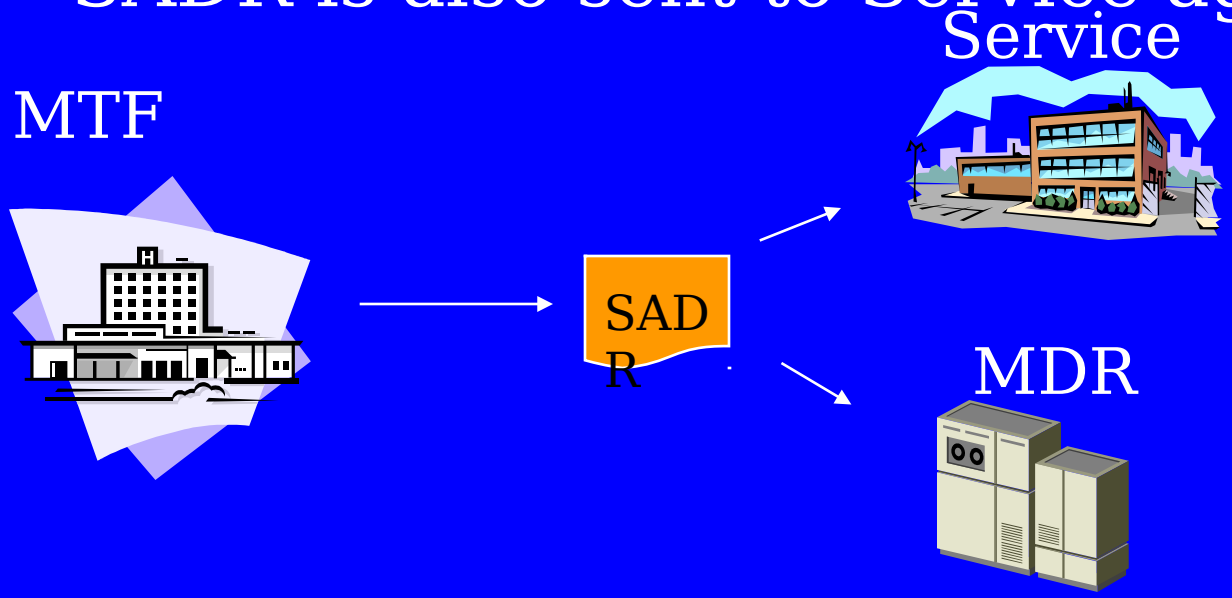


Standard Ambulatory Data Record

- ADS: Data capture for all ambulatory encounters; inpatient professional data capture .
- SADR: prepared from data captured during the encounter
- SADR files extracted and transmitted daily
- Each SADR contains data from many different CHCS/ADS files
- SADR “Key”: Appointment ID

Standard Ambulatory Data Record

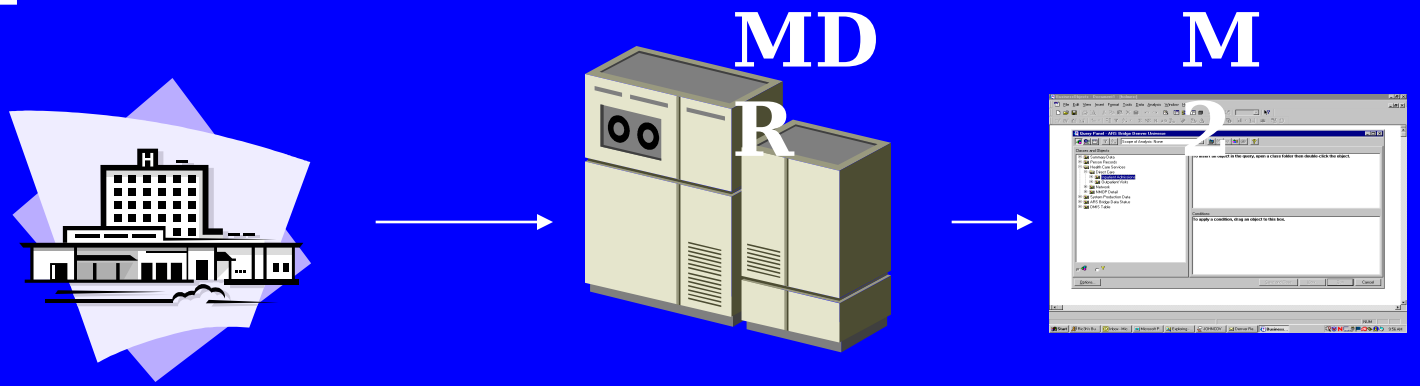
- SADR file is transmitted by MTFs directly to EI/DS
- SADR is also sent to Service agenci



The same data sent both places

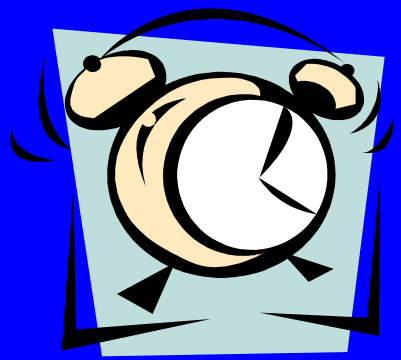
Standard Ambulatory Data Record

- SADR file contains daily activity for that MTF
  - New records
  - Updates
- MDR processes files monthly and sends subset to M2



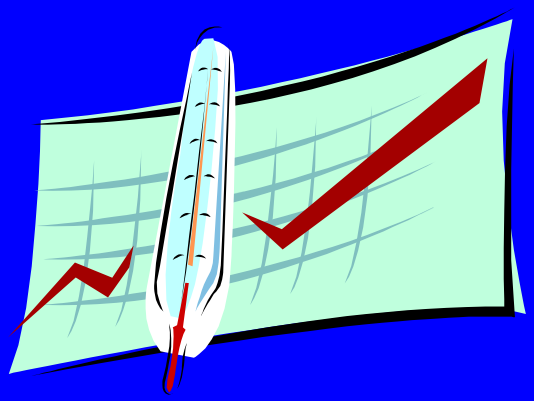
SADR Timeline

- SADR extract sent to MDR daily
- New records, updates and cancellations posted to M2 files once a week



What's in the SADR?

- Each SADR represents an ambulatory event
- Abridged "patient record"
- Information about:
  - → the patient
  - → the care that was provided
  - → the providers of care
  - → administrative data



How is the SADR used?

- **Prospective Payment Fee For Service (PPS FFS)**

  → MTFs earn $$ for care provided

  → Money based on SADR coded workload and local market prices

  → Earnings based on **RVUs**, which are based in CPT Codes!

  → Only “B” coded SADRs.

How is the SADR used?

- **TRICARE for Life Earnings (TFL)**

  → DHP decremented for value of care provided seniors

  → Earn the money back by caring for seniors

  → Earnings based on **APGs** on SADR, and on "prices"

  → Ungroupable APGs do not earn money back!

How is the SADR used?

- DHP Performance Contract

  → Required performance metric program

  → USD/P&R actively reviewing DHP performance indicators

  → Performance Goals established for each indicator

  → SADR serves as the primary source of ambulatory data in MHSER

How is the SADR used?

- MHSER Provider Productivity Metric

  → CPT **relative value units** (RVUs) applied to SADR data

  → Done at a MEPRS Code level; often reviewed at provider level

  → Combined with MEPRS FTE data to come up with a “per day” productivity measure

  → Requires consistent data capture among CHCS/MEPRS.

How is the SADR used?

- Third Party Billing

→ Record level data sent to TPOCS for billing

→ CPT Code data will be the basis for billing beginning in FY03

→ Third Party Payors will not pay for improperly coded records

Those that don’t follow rules; those with inconsistent data

How is the SADR used?

- Population health initiatives

  → Prevention programs, HEDIS-like performance measurement

  → SADR to find beneficiaries who need certain tests, medications, etc

Important SADR Data Quality Considerations

- Files and Tables
  - → CPT Code updates
  - → Calendar year
  - → Update all systems that use CPT as soon as available (CHCS, ADS, TPOCS)
  - → IMC Checklist Item
  - → Delays interrupt work/data flows; can cause major re-work

Important SADR Data Quality Considerations

- SADR for every

  →Ambulatory encounter (regardless of count)!

  →Inpatient professional service (FY 03+)

  →Completeness has been a major problem

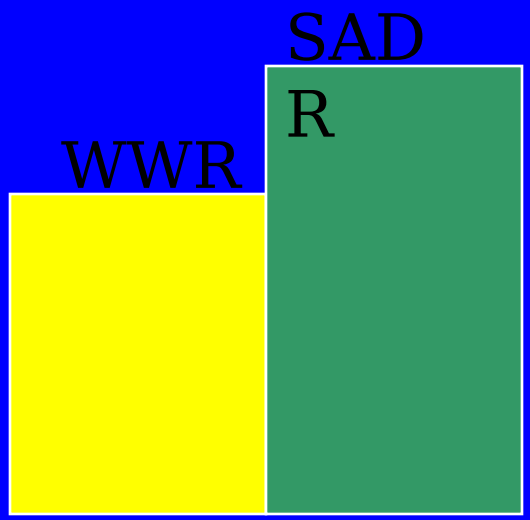
- IMC Checklist Item

Important SADR Data Quality Considerations

- SADR Compliance Issues
  - → Process problems
  - → Lack of incentives
- Precise measurement of missing SADRs not possible using corporate data
- Large Numbers!

Important SADR Data Quality Considerations

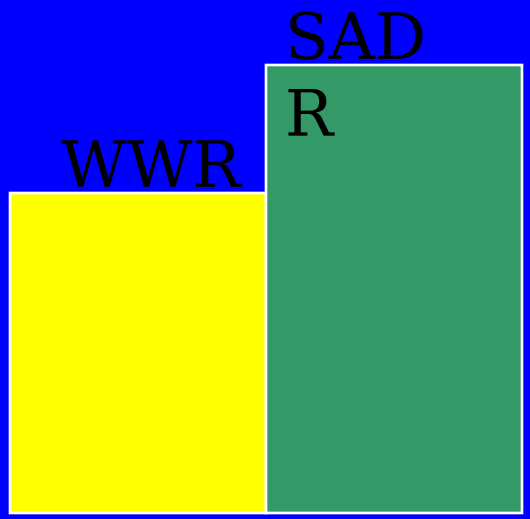
Should be:



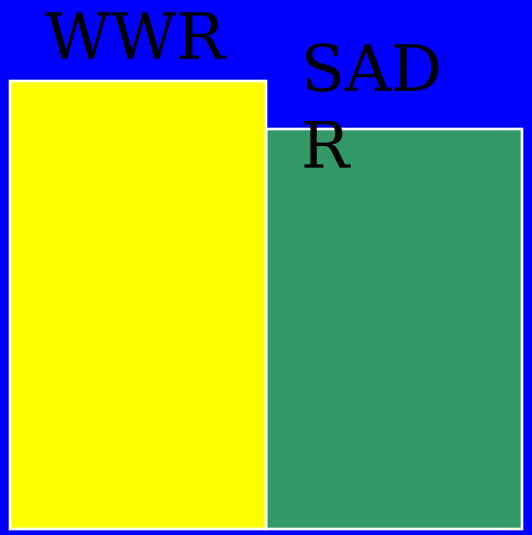
- WWR and SADR both capture ambulatory data - telecons, too
- WWR reports only count visits
- SADR should be count visits and non-count!

Important SADR Data Quality Considerations

Should be:



Is:



Important SADR Data Quality Considerations

- Extent of Completeness Problem

  → Precise measurement requires comparison of CHCS kept appointments to completed SADRs

  → CHCS appointment data not (yet) available in corporate systems

  →(We estimate, though!)

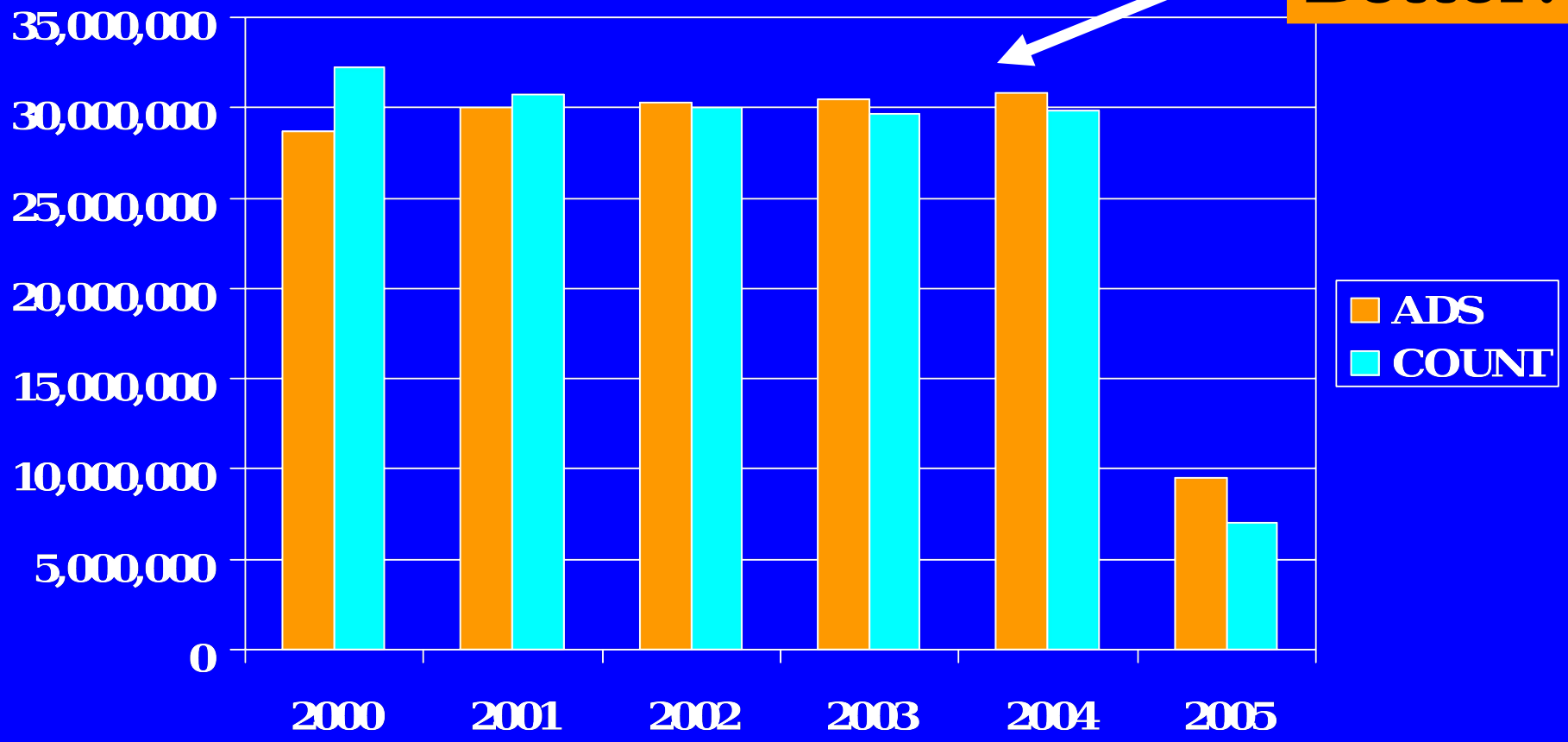
  → Measure locally with CHCS/ADS

  → Use Service resources, if available

AMBULATORY DATA CAPTURE

ADS vs. Count Visits (ADS Should be larg

Getting Better!



Important SADR Data Quality Considerations

- SADR Completeness

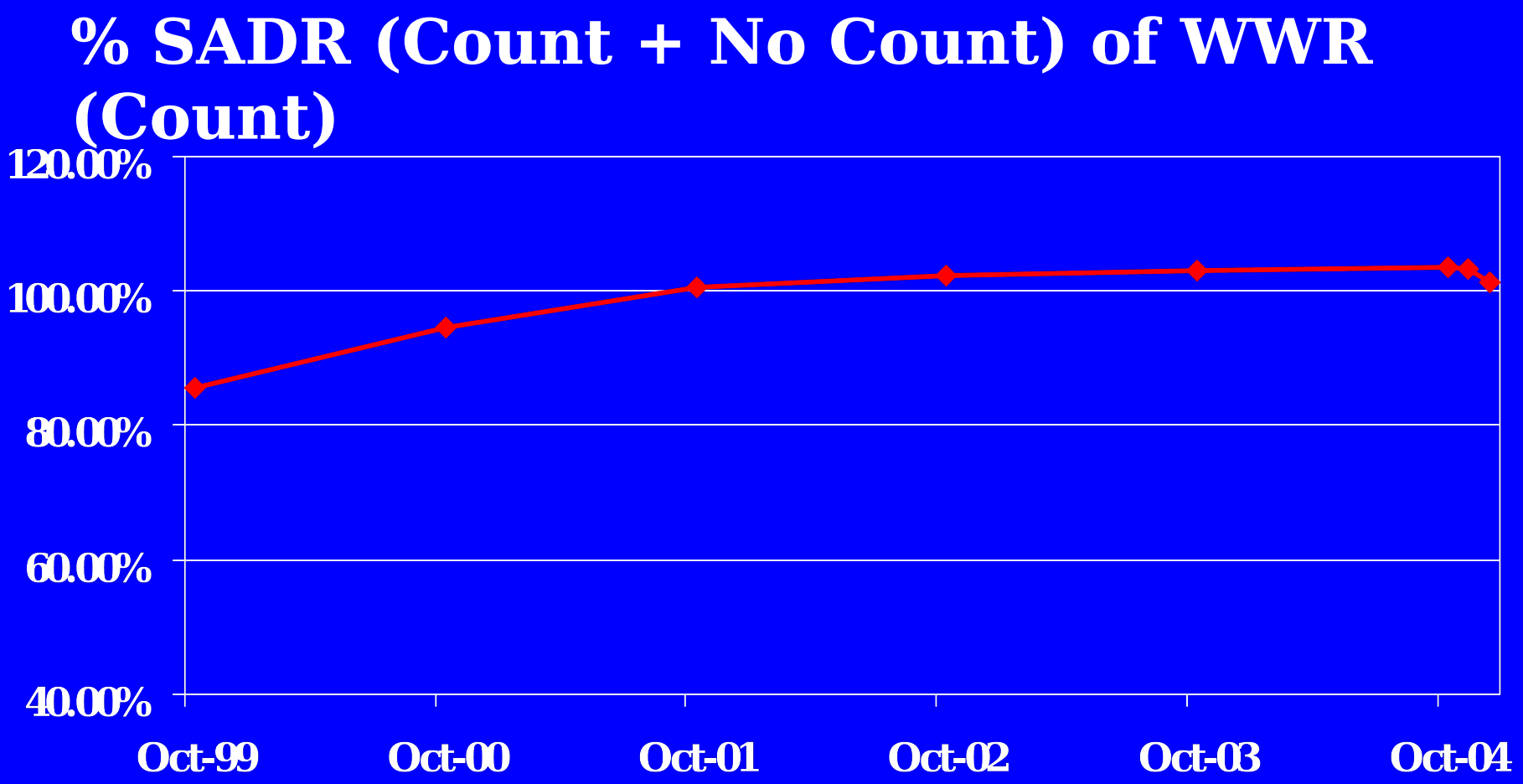
  →Use corporate systems to assess the environment

  →But timely feedback works best to solve problems!

  → Use local system to identify providers with incomplete ADS records

  → Identify process problems, resolve, monitor

“Completeness” History



Important SADR Data Quality Considerations

- Clinical Coding
  - → ICD-9 CM Diagnosis
  - → CPT Codes, E&M Code
  - → Primary means to identify types of services provided in our MTFs
  - → Required review of a sample of records for IMC Program

Important SADR Data Quality Considerations

- Clinical Coding

  → The clinical codes used should be documented on hard copy record

  → All relevant diagnoses/procedures with the correct number of digits in the codes

  → Very significant historical problems

Important SADR Data Quality Considerations

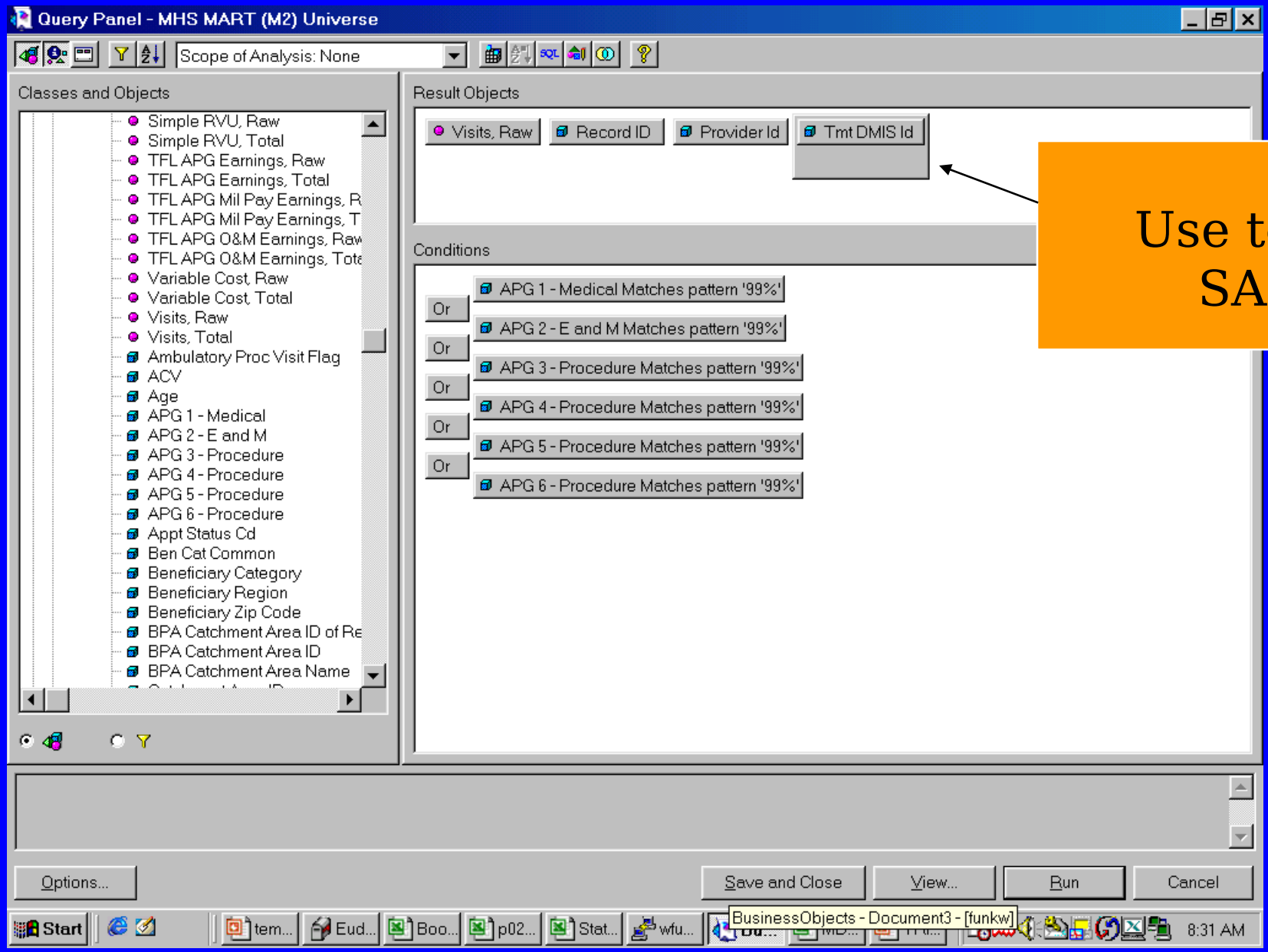
- Clinical Coding - Finding coding problems

  → Properly coded records should “group” to an APG

  → Ungroupable APGS: 99*

  → Can run reports to isolate ungroupable APGs

  → Include “SADR Key” or provider ID in queries to isolate the problem records and fix them!

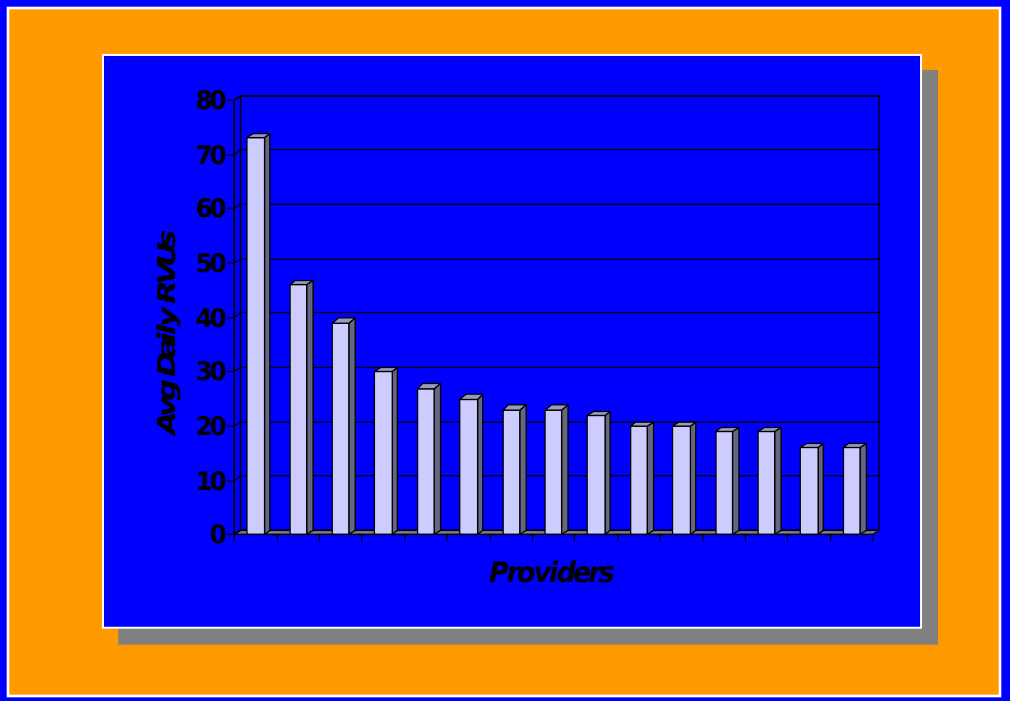


Use to find SADR

Important SADR Data Quality Considerations

And sometimes the DQ problems find you!

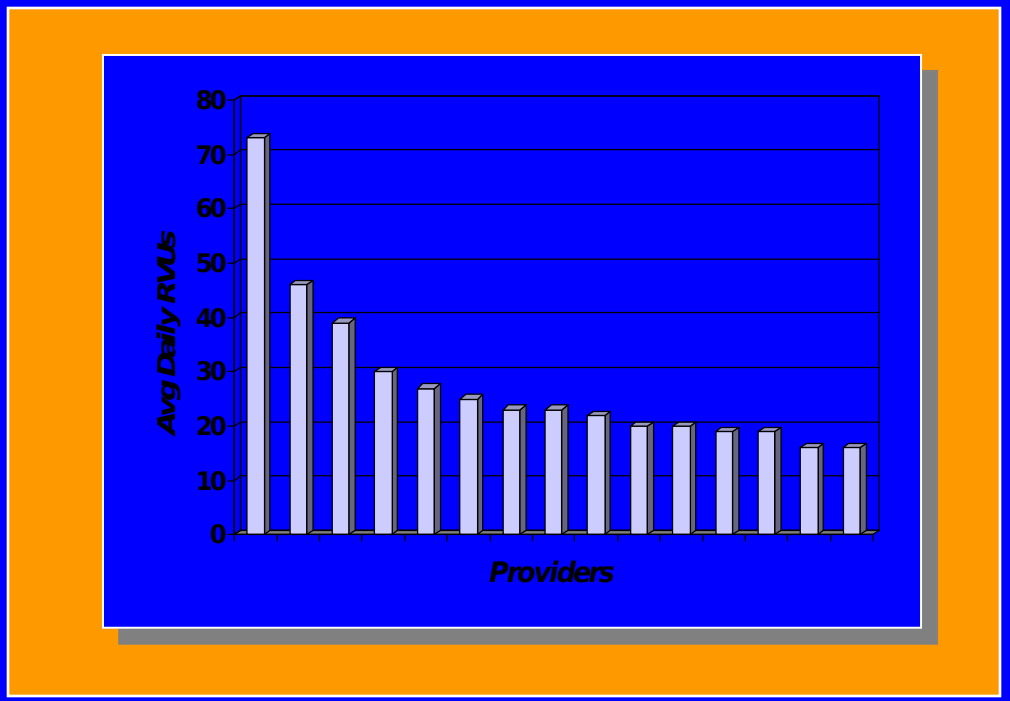
- Relative Value Units used in DHP Provider Productivity Metrics
- RVU based on CPT Code
- Improper coding can cause unusual results



Important SADR Data Quality Considerations

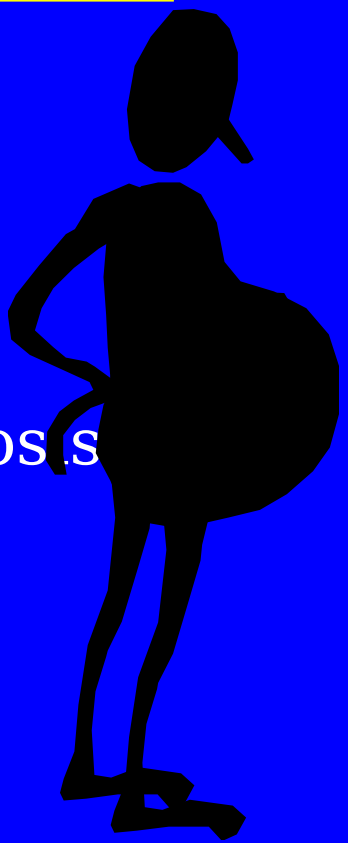
Some things we've seen

- Improper use of global CPT Codes
- Problems with provider ID
- Improper use of MEPRS Codes



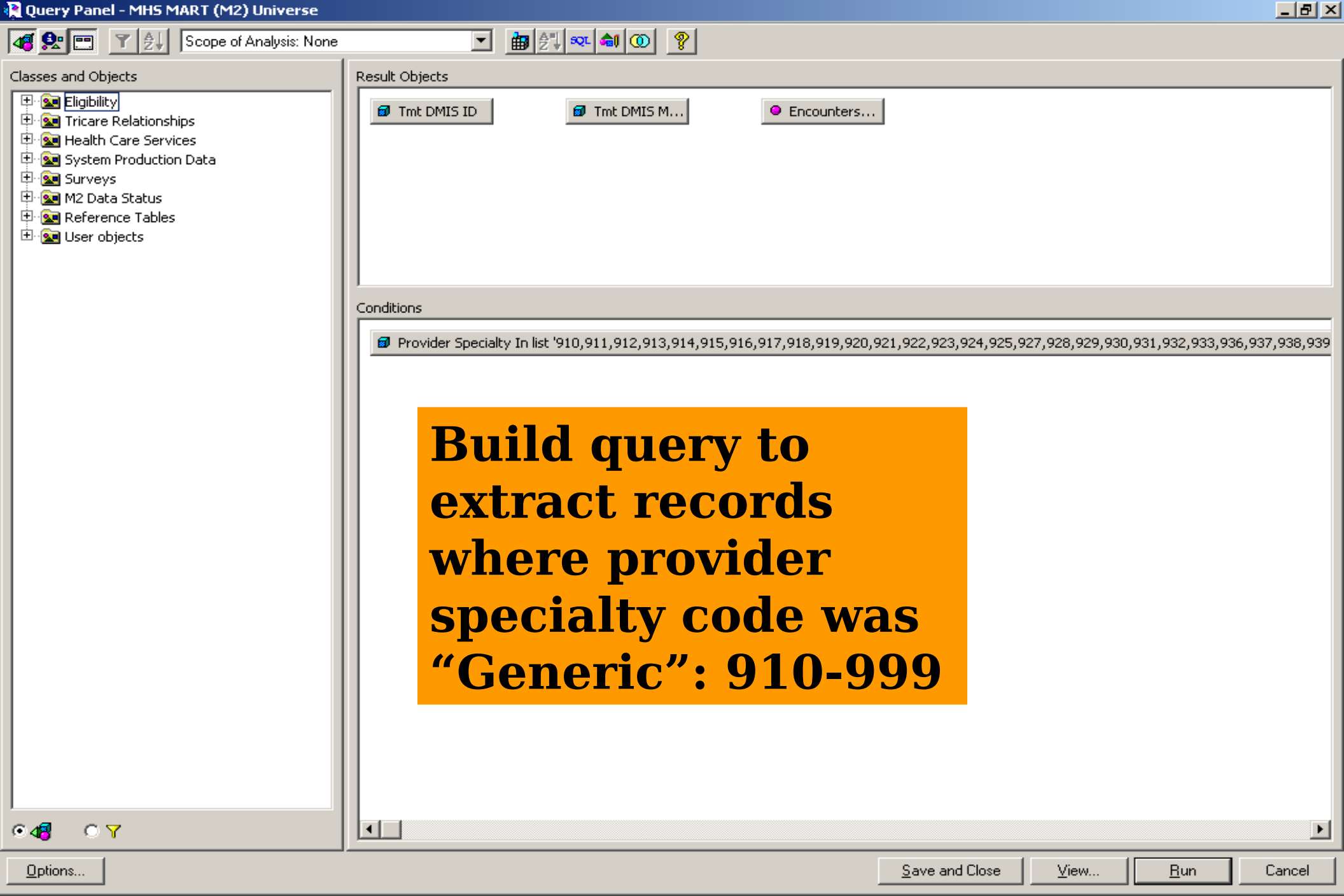
Important SADR Data Quality Considerations

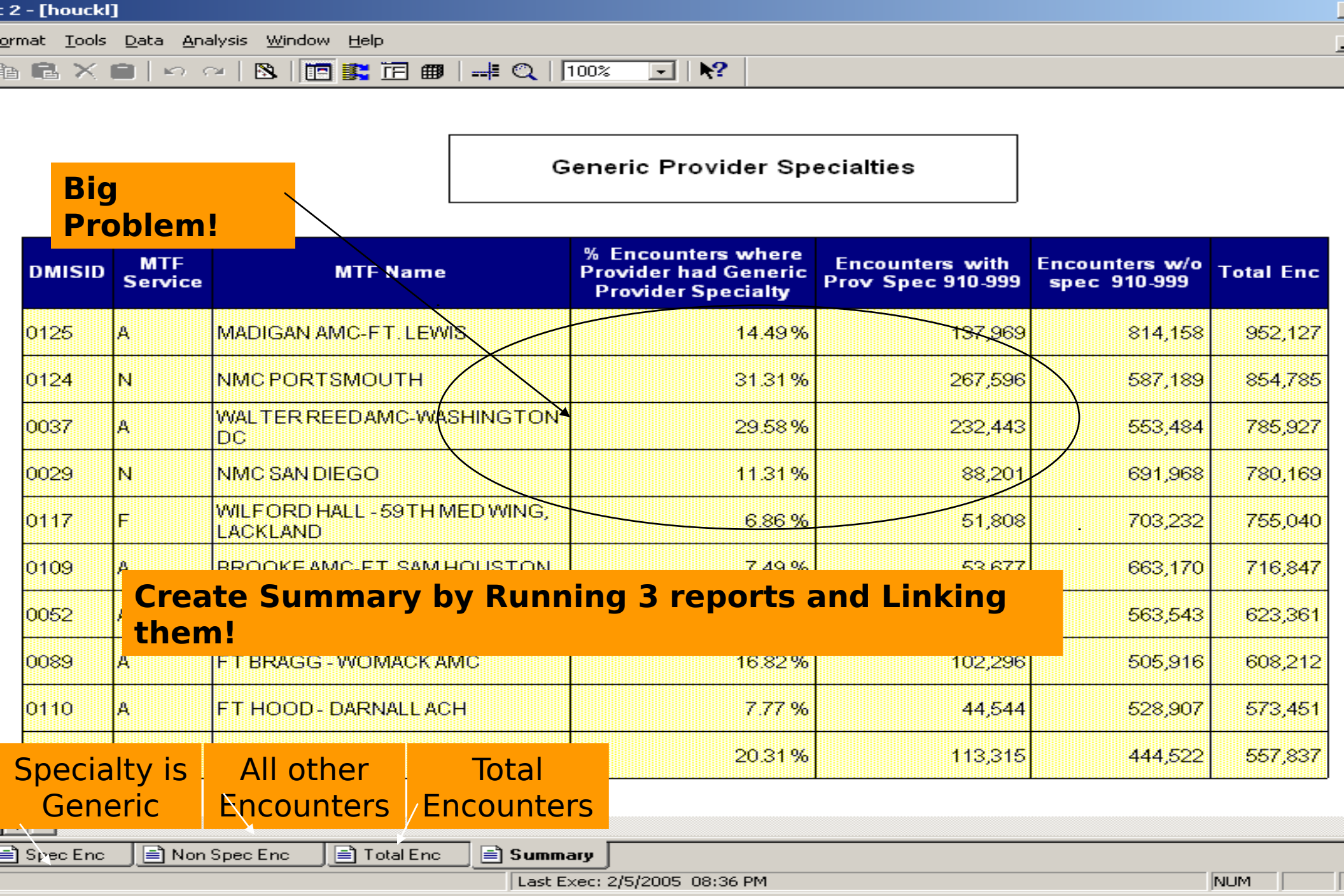
- Attention to Detail
  - → Pregnant Men
  - → Procedures over the Phone
  - → An entire clinic with one diagnos s
  - → Pseudo provider identifiers



Important SADR Data Quality Considerations

- Generic Provider Specialties
  - Provider specialty codes 910-999
  - Should not be used!
  - Will not earn PPS Credit beginning in FY06


Query Panel - MHS MART (M2) Universe
Scope of Analysis: None
Classes and Objects
Eligibility
Tricare Relationships
Health Care Services
System Production Data
Surveys
M2 Data Status
Reference Tables
User objects
Result Objects
Tmt DMIS ID
Tmt DMIS M...
Encounters...
Conditions
Provider Specialty In list '910,911,912,913,914,915,916,917,918,919,920,921,922,923,924,925,927,928,929,930,931,932,933,936,937,938,939
Build query to extract records where provider specialty code was "Generic": 910-999
Options...
Save and Close
View...
Run
Cancel



DMISID	MTF Service	MTF Name	% Encounters where Provider had Generic Provider Specialty	Encounters with Prov Spec 910-999	Encounters w/o spec 910-999	Total Enc
0125	A	MADIGAN AMC-FT. LEWIS	14.49%	137,969	814,158	952,127
0124	N	NMC PORTSMOUTH	31.31%	267,596	587,189	854,785
0037	A	WALTER REED AMC-WASHINGTON DC	29.58%	232,443	553,484	785,927
0029	N	NMC SAN DIEGO	11.31%	88,201	691,968	780,169
0117	F	WILFORD HALL - 59TH MED WING, LACKLAND	6.86%	51,808	703,232	755,040
0109	A	BROOKE AMC-FT SAM HOUSTON	7.49%	53,677	663,170	716,847
0052	A				563,543	623,361
0089	A	FT BRAGG - WOMACK AMC	16.82%	102,296	505,916	608,212
0110	A	FT HOOD - DARNALL ACH	7.77%	44,544	528,907	573,451
			20.31%	113,315	444,522	557,837

Questions?